

CIO

BEYOND BRAINSTORMING

Innovation isn't just blue-sky thinking 11

TAKING A CUE FROM I.T.

Hallmark uses portfolio tools for cards 16

BITCOINS IN YOUR WALLET?

Execs need to monitor digital currency 18

3 VIEWS FROM THE CLOUD

CIOs seek agility, competitive edge 30

The Great Schism

Digital strategist
or traditional CIO?
Our 13th annual
State of the CIO
research reveals
a big split 22

BY KIM S. NASH

PLUS

The Metrics That Matter

Get IT projects approved by
providing the two numbers
that CEOs really care about 15



Connected Machines:

TRANSFORMING A FUTURE TREND INTO A BUSINESS REALITY

Machine-to-machine technology is a game changer, helping businesses create new opportunities, competitive advantages and efficiencies.

Connected machines are not just the wave of the future. They are a business reality right now. According to a recent IDG survey sponsored by Verizon, 51% of companies have already deployed or at least piloted machine-to-machine (M2M) solutions in some fashion.¹

That number is growing rapidly and so are the ways businesses are using connected machines. Industries across the board are using them to help differentiate themselves from competitors, create efficiencies and generate new revenue. Here's how.

Taking Product Innovation to the Next Level

From smart cars to smart homes and even smart healthcare, connected products are becoming a big part of our day-to-day lives. Leading businesses like home improvement giant Lowe's® are already realizing its potential.

M2M connectivity is an essential component of the Lowe's® Iris® "smart home" kit. This innovative technology allows homeowners to control their lights, thermostat and other systems—all from their smartphones.

According to Lowe's Smart Home Vice President Kevin Meagher, "Wireless connectivity is of great value to our Iris customers who would like the freedom to manage and monitor their home without a broadband connection."

Generating New Business Opportunities

The impact of M2M technology is being felt across industries, changing business practices and even helping create new business models. Usage-based insurance (UBI) is a prime example. The evolving UBI business model is dependent on connected machines to deliver real-time information from the driver to the insurer. As a result, insurers are able to offer discounted premiums based on actual driving behaviors. This new business model is creating a win-win situation—new profit opportunities for their business and new savings for customers.

"Car OEMs now increasingly see infotainment as a key differentiator in their cars. We predict a sharp growth in the adoption of connected car infotainment systems over the next few years."²

—Gareth Owen,
principal analyst at ABI Research

That's just the tip of the iceberg. Connected kiosks are helping retailers expand their reach by taking advantage of profitable remote locations without having to staff the location.



Based on continuous access to secure patient data, healthcare providers are using remote monitoring to improve treatments. Even firefighters are using biometrics and environmental data to help increase safety and improve response time. Golden-i, a real-time data headset developed by Kopin with help from Verizon, uses high-bandwidth services via M2M connections to help first responders do their jobs more effectively.³

Boosting Operational Efficiencies

Efficiency is the backbone of M2M technology. Through connected machines, businesses are monitoring remote assets, helping reduce loss, downtime and theft.

They are proactively maintaining equipment to help ensure uptime and managing fleets to help improve their supply chains and field service performance.

Recently, Hoffman Southwest, the largest Roto-Rooter franchisee in the country, implemented Networkfleet®, a fleet management solution from Verizon, and dramatically streamlined its fleet operations with the ability to monitor vehicles and drivers in real time.

The company saw a huge ROI, savings on labor and lower fuel costs; reduced vehicle emissions; and experienced an increase in service calls that did not require any additional staff or vehicles.

Reliable, High-Quality Wireless Service Is Key.

The common thread across nearly all M2M applications is wireless connectivity. And in millions of cases, the way machines connect to each other, and to people, is through Verizon. One reason for that is that Verizon has the largest 4G LTE wireless network in the United States, as well as cost-effective connections for lower-bandwidth needs.

But it's more than just our connectivity. Verizon security and cloud teams have years of experience assisting customers with the strategy, design, implementation and integration of M2M Cloud and Security plans to ensure your M2M data is secure.

By tapping into the huge potential of M2M technology, businesses can position themselves ahead of the competition, helping ensure a profitable, connected future.

58% of organizations are turning to M2M solutions for operational efficiencies.¹



Discover the many ways connected machines are helping businesses succeed:
VERIZONENTERPRISE.COM/CONNECTEDMACHINES



¹ IDG and Verizon Independent Study, 2013. ² ABI Research, ">\$1.67 Billion in Revenue from Automotive App Downloads by 2018," June 2013.

³ Verizon Wireless news release, "Verizon Wireless and Kopin Corporation Team up at 2012 CES to Demonstrate the Benefits of Verizon's 4G LTE Network and Kopin's Cloud Computing Golden-i Headsets," 2012. 4G LTE is available in more than 500 markets in the U.S. Network details & coverage maps at vzw.com. © 2013 Verizon Wireless.

144,000

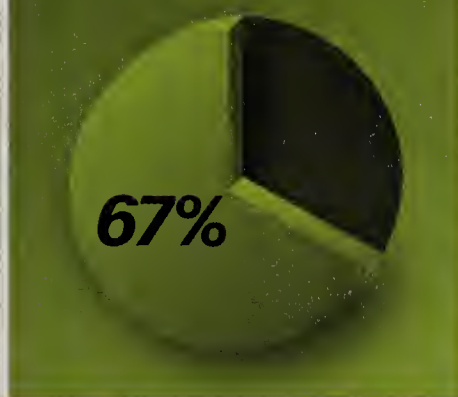
Mobile Devices Supported on a Single Cisco Unified Computing System



67%

*Reduction in
Desktop TCO*

67%



5,000

Microsoft Windows® Desktops in 30 Minutes

1

*Cisco
Unified
Computing
System*

Best-in-Class Virtualization with Cisco Servers.

Find out more at cisco.com/servers



*With
Intel® Xeon®
processors*



*TOMORROW
starts here.*

For more performance information, visit cisco.com/go/ucsbenchmarks.

© 2013 Cisco and/or its affiliates. All rights reserved. All third-party products belong to the companies that own them. Cisco, the Cisco logo, and Cisco UCS are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. Intel, the Intel logo, Xeon and Xeon Inside are trademarks or registered trademarks of Intel Corporation in the U.S. and/or other countries. All other trademarks are the property of their respective owners.

Start

From the Editor in Chief 4
Chatter 4
From the CEO 8

4



Grow

INNOVATION & BUSINESS VALUE

Why innovators still need structure 11
Shoppers say coupons aren't enough trade-off for tracking their location 12
Document management smooths workflow 14
Keep your eye on the top and bottom lines 15



11

Run

LEADERSHIP & OPERATIONAL EXCELLENCE

Hallmark runs business projects with IT tools 16
Get a primer on bitcoins, the digital currency 18
What 5G will offer—other than speed 19
Backing up cloud with more cloud 20
Airport shoots to put everything in the cloud 20



16

Connect

PEER ADVICE

How cloud is helping these three CIOs 30
Improving innovation by deliberately building a creative culture 34
To support a technology-driven strategy, Allstate's CEO keeps his CIO close at hand 36



30

Finish

Index 38
Portable breathalyzer keeps motorists safe without sacrificing good cheer 40



40

The Great Schism 22

COVER STORY Digital strategist or traditional CIO? Our 13th annual **State of the CIO** research reveals a big split.

BY KIM S. NASH





FROM THE
EDITOR IN CHIEF

start

CHATTER

The CIO Divide

In our 13 years of conducting our annual State of the CIO survey, we've never seen anything quite like this year's results. Our profession has become a house divided, with traditional service-provider CIOs on one side and business-focused, digital-strategist CIOs on the other.

"As we plow through this period of digital disruption, where established rules for competing may no longer apply, some CIOs now question what they want for themselves," Managing Editor Kim S. Nash writes in our cover story ("The Great Schism," Page 22). "The profession is changing fast in an atmosphere where colleagues sometimes look upon a traditional IT group as a hindrance to corporate success."

Nearly half of the 722 CIOs and IT leaders responding to our global survey say their IT groups are viewed by business colleagues primarily as cost centers or service providers. That's a deflating statistic to report after so many years of strategic business talk from CIOs everywhere.

The brightest—and most instructive—spot in the research comes from the 25 percent of CIOs who are thriving as business peers and game-changers. The rest are somewhere in between, walking an IT-business tightrope across the great divide.

Traditional cost-center CIOs turn their gazes inward, our research shows. They fine-tune IT operations, deploy new systems and control IT costs. They may work as many hours as leading CIOs, but they tend to get fewer results, less success and lower salaries.

Thriving CIOs behave quite differently. They focus externally and meet with customers. They make friends in the C-suite. They keep IT credibility high across the organization. Our story highlights some compelling examples of CIOs who exemplify that kind of business leadership at companies such as Boston Scientific, CUNA Mutual Group, GAF, Jacobs Engineering, Kroger and Whirlpool.

At building materials company GAF, for example, CIO Adam Noble sends IT staffers out to collaborate directly with customers on topics like security and mobility. At CUNA Mutual, CIO Rick Roy encourages his team to think through the customer experience so they can create IT products to improve it.

The best CIOs, ultimately, will be the nimble, adaptable ones who find the right balance between internal and external focus. As Whirlpool CIO Mike Heim advises: "Your best tools are stamina and natural curiosity."

Maryfran Johnson, Editor in Chief, CIO Magazine & Events
mfjohnson@cio.com

Mobile Landscape Shifts

Like that old cliché about IBM, **nobody ever got fired for buying BlackBerries**. But with the onetime enterprise favorite **heading toward its demise**, CIOs must evaluate a trio of mobile contenders: Samsung, Apple and Microsoft. "There will be **no single platform** going forward," says CIO.com's Tom Kaneshige, who compares the companies' pros and cons. www.cio.com/article/742571

Warming Up to Cloud?

Privacy concerns have made healthcare companies super-cautious about moving to cloud-based technologies. Yet two recent surveys show increasing confidence in **cloud security and data protection**, writes CIO.com's Brian Eastwood. Healthcare IT vendor Imprivata and Porter Research attribute the **growing confidence** to cloud providers' willingness to sign HIPAA business associate agreements, which detail how providers will **protect personal health information**. The Porter study (sponsored by Compuware's security subsidiary) found 58 percent of C-level hospital executives "place a high importance in cloud-based technologies." www.cio.com/article/743379

More Snowden Fallout

The Edward Snowden NSA leaks are catching cloud providers and their customers in a **business backlash**, writes CIO.com's Stephanie Overby. Alex Lakatos, a lawyer with Mayer Brown, notes that U.S.-based cloud providers are considered vulnerable to NSA surveillance and viewed "with **suspicion and distrust**" by European organizations. Lost cloud business could run into the **billions** by 2016, some analysts claim. www.cio.com/article/743276

Compiled by Staff Writer Lauren Brousell.
Have a comment about a story in this issue? Go to www.cio.com/issue/20140101 or write to letters@cio.com.

Want your business to be more agile, efficient and profitable?

Start with your data center.

The Software-Defined Data Center.

VMware's Software-Defined Data Center virtualizes all data center resources and automates management. So computing, storage, network and security can reach new levels of agility and efficiency. By adopting this IT-as-a-Service approach, businesses are reducing operating costs and capital expenditures, while IT drives innovation and increases revenue.

vmware®

Visit vmware.com/sddc

EXECUTIVE VIEWPOINT

**Shoeb Javed**

CTO, WORKSOFT INC.

Javed is responsible for technology strategy, software development and customer support at Worksoft, an SAP® partner and leading provider of business process validation software for complex mission-critical

applications. As CTO, he works with technology leaders at some of the largest global Fortune 1000 companies to speed up project timelines, improve quality and gain operational efficiencies.

Innovate Faster

Automation cuts timelines, boosts quality and lowers cost

Innovation is key to a company's future, but reliability is key to day-to-day operations—and reputation. So how does an organization balance the technology risk that comes with the fast pace of change and the need for stable business processes? Shoeb Javed, CTO of Worksoft, recently discussed how automation software can help companies achieve that balance.

The landscape of mission-critical enterprise applications is more complex than ever. How are companies managing change in this environment?

It's surprising, but the change management process has remained largely unchanged for a long time. Most companies manage change manually. Even if they have tools for organizing the change process, the actual activities are largely manual. This is very time-consuming. It's not very efficient and unnecessarily delays projects. It doesn't have to be this way.

What can companies do to accelerate the pace of innovation and deploy new technologies faster?

Innovation means changes to your complex enterprise application landscape. That introduces a great deal of technology risk because your business could be disrupted if things don't work as planned. If you could accelerate the process of ensuring that nothing will break when you introduce change, you could go faster. Companies should look at innovating the way that they manage change, just as they're looking at

innovation in specific business systems themselves.

SAP HANA®, mobility and cloud projects offer great dividends, but need to be deployed quickly and correctly. How can IT leaders ensure project success—without unintended consequences?

Companies often skimp on quality assurance. They don't have enough time, money or resources, and often projects are already delayed when they get to testing. The result can be catastrophic. If there's a serious glitch, a company might not be able to take orders or ship product. It might get into a situation with so many problems post-production that it's like death by a thousand cuts. If you're deploying new technology with a large number of small problems, you face productivity losses and frustration. The good news is that if you can identify your critical business processes and then automate the validation of those processes, you can avoid all of this risk.

How does business process validation increase business agility and shorten project timelines?

Functionally, you have to make sure that business processes work as intended. Then you have to make sure that performance is up to par. If you have 5,000 users doing something at the same time, you need to make sure that your systems are able to handle that. If you're able to effectively automate the validation of your business processes—including functionality, performance and role-

based security—then you can take huge amounts of manual effort and time out of your projects. It also means you can do more projects with the same staff. And that's agility.

It seems too good to be true: shorter timelines, higher quality, lower costs, less risk, faster innovation. Has this been proven?

At Worksoft, we've seen some of the largest, most sophisticated global Fortune 500 companies cut project timelines significantly with automation. One of our clients is saving more than \$2 million annually in their first year through automation. When 40 cents of every project dollar go to quality assurance, the opportunity is substantial. What used to take 50 people six weeks to do was cut to two people over a couple of days. And their risk of a business process failure due to technology has dropped to nearly zero. The real-world savings that companies get from automation are quite dramatic. ■

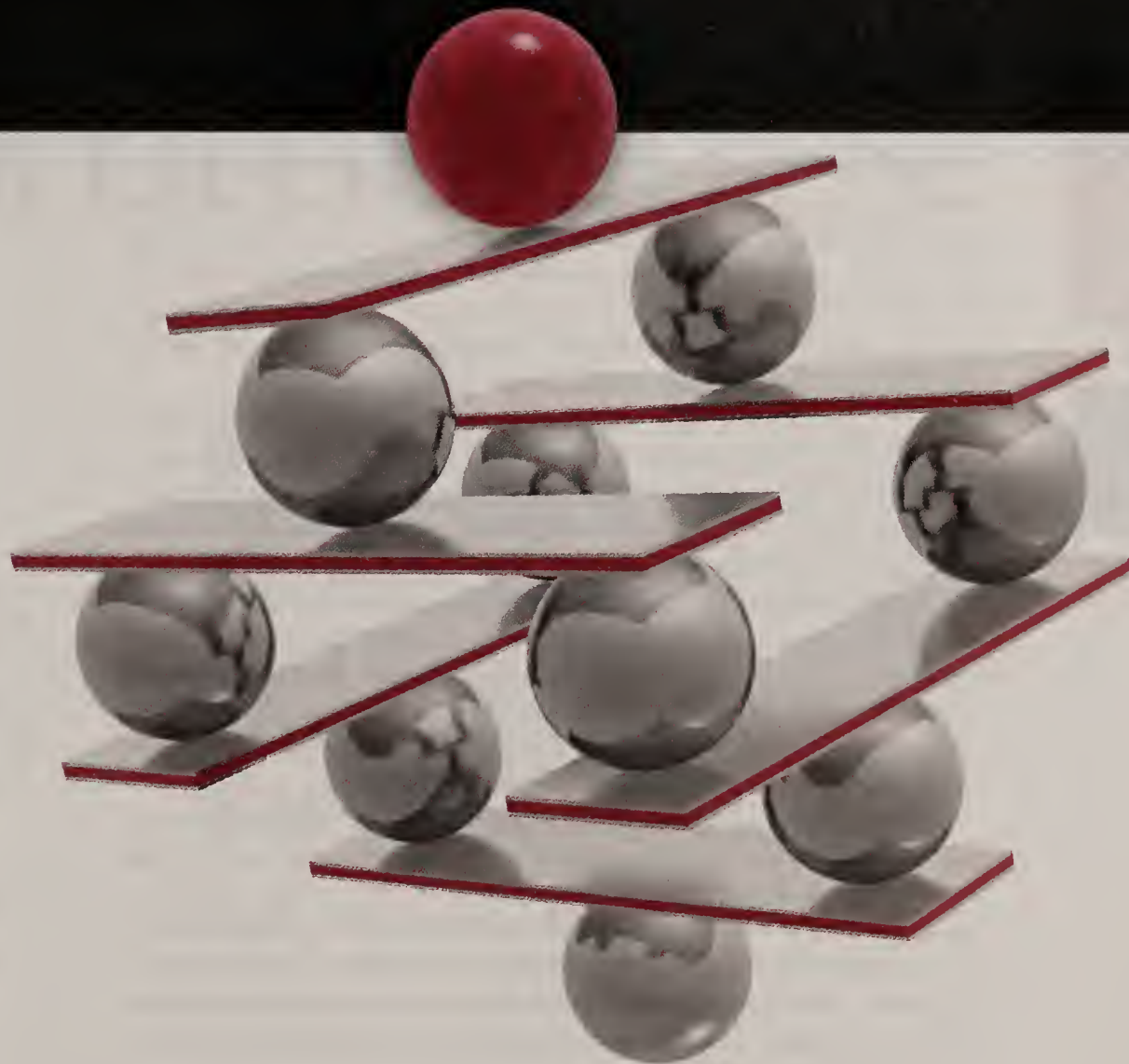
FOR MORE INFORMATION: please visit www.worksoft.com/innovate

FOR A COMPANION WHITE PAPER: www.cio.com/whitepapers/Worksoft

WORKSOFT®



With Technology Comes Technology Risk



Lower Technology Risk with End-to-End Business Process Validation

Managing enterprise systems doesn't mean you have to accept unnecessary risk to your end-to-end business processes. Reduce the likelihood of unexpected events, even as you deploy more advanced technology and cut costs.

For more than a decade, global Fortune 500 companies have been turning to Worksoft to mitigate technology risk and dramatically lower the chance of business disruption when technology changes. Best of all, Worksoft customers can achieve cost savings in the millions of dollars annually. It's time to find out what Worksoft peace of mind is all about.

Rest easier. www.worksoft.com/risk

WORKSOFT®



FROM THE PUBLISHER

Refusing to Inhale

If chief marketing officers are really going to end up with larger IT budgets than CIOs by 2017 (as Gartner predicted early last year), a lot would have to change—and almost overnight. Why? Because corporate IT still controls 71 percent of IT budgets in the U.S., and that number will hold steady over the next three years, according to our 13th annual State of the CIO research (see “The Great Schism,” Page 22). That research reflects the latest insights from 722 top IT executives.

We’ve also seen in other research here at IDG Enterprise (the parent company of *CIO* magazine) that a mere 7 percent of IT organizations use a decentralized organizational structure, versus 65 percent centralized and 27 percent federated. If the CIO’s budget control were truly shifting away, wouldn’t we be seeing far more decentralized IT departments?

One of the strongest indicators of rising CIO influence that cropped up in our State of the CIO research was that nearly half of you (44 percent) are reporting directly to CEOs, and that number jumped by 5 percentage points over last year’s results. That tells me that as technology moves to the center of business—driving greater innovation and competitive advantage—the CIO remains the best choice to be in charge of IT spending.

Certainly, the individual business units at most companies today are more tech savvy than ever. The quest to pull customer and market insights out of big data, using sophisticated and user-friendly online marketing tools, absolutely has IT spending on the rise in many marketing operations. Yet that’s a far cry from handling the lion’s share of any company’s IT budget, which includes responsibility for vendor negotiations, security and risk management, integration and systems management, and myriad other enterprise IT complexities.

The best news of all from our State of the CIO research is that one-third (34 percent) of IT leaders are spending more of their time as business strategists than technologists. That means engaging in activities that drive business innovation, identify opportunities for competitive advantage and track market trends or customer needs. The number of business strategists has tripled since 2011, when it was just 11 percent of our respondents.

So whenever I hear that aging Gartner prediction about CMOs and IT budgets these days, I have to wonder what they’re smoking over there. It’s clear that CIOs and their CEOs aren’t inhaling.

Adam Dennison, VP & Publisher
adennison@cio.com



BUSINESS TECHNOLOGY LEADERSHIP

PRESIDENT AND CEO Michael Friedenberg
GROUP PUBLISHER Bob Meik
PUBLISHER Adam Dennison
PUBLISHER EMERITUS Gary J. Beach
CHIEF CONTENT OFFICER John Gallant

EDITORIAL

EDITOR IN CHIEF

Maryfran Johnson

EXECUTIVE EDITOR

Mitch Betts

MANAGING EDITOR

Kim S. Nash

SENIOR EDITOR, COPY AND PRODUCTION

Colleen Barry

STAFF WRITER

Lauren Brousell

CONTRIBUTORS

Mary Brandel, Dan Cornell, Matthew Finnegan,
Adam Hartung, Martha Heller, Jeremy Kirk,
Stephen Lawson, Ellen Messmer, Zach Miners,
Stephanie Overby, Mary K. Pratt

CONTRIBUTING EDITORS

CIO EXECUTIVE COUNCIL

VICE PRESIDENT, STRATEGY

Rick Pastore

DIRECTOR OF STRATEGIC CONTENT

Tim Scannell

DESIGN

ART DIRECTOR

Terri Haas

ONLINE EDITORIAL

EDITORIAL DIRECTOR

Brian Carlson

EXECUTIVE EDITOR

Dan Muse

ONLINE MANAGING EDITOR

Rich Hein

SENIOR EDITORS

Brian Eastwood, Al Sacco

SENIOR ONLINE WRITERS

Tom Kaneshige, Thor Olavsrud

ASSOCIATE ONLINE EDITOR

Sheryl Hodge

STAFF WRITER

Sharon Florentine

RESEARCH

RESEARCH DIRECTOR

Carolyn Johnson



CXO MEDIA INC.

©CXO Media Inc

INTERNATIONAL DATA GROUP

CHAIRMAN OF THE BOARD

Patrick J. McGovern

IDG COMMUNICATIONS, INC.

CEO

Michael Friedenberg



CONTACT US

WHO COVERS WHAT www.cio.com/staff

EMAIL letters@cio.com

PHONE 508 872-0080

The interoperability to engage communities



We offer a platform for Strategic Interoperability.

Our technology is essential if you want to make breakthroughs in strategic initiatives such as coordinating care, managing population health, and engaging with patient and physician communities.

Add our HealthShare platform to your EMRs.

InterSystems HealthShare® will give you the ability to link all your people, processes, and systems – *and* to aggregate, analyze, and share all patient data. With HealthShare, your clinicians and administrators will be able to make decisions based on complete records and insight from real-time analytics.

INTERSYSTEMS®

InterSystems.com/Ability3F

A manufacturing cloud that helps
you improve every tiny detail.

It's what's next.



Manufacturing is changing at record speed. More than 350 forward-thinking companies run their manufacturing operations with the Plex Manufacturing Cloud. Unlike on-premise systems, Plex continuously improves to address current and future challenges. It's always flexible, always current, and the best way for a manufacturer to be ready for what's to come. **PLEX.COM**

PLEX
THE MANUFACTURING CLOUD

For **Monique Shivanandan**, CTO of Capital One, innovation meshes the creative with the doable.



11

Beyond Brainstorming

How innovators maintain the delicate balance between blue-sky thinking and practical constraints **BY MARY BRANDEL**

When it comes to innovation, IT and business leaders expend a lot of effort prying their organizations out of the box. At The Hershey Co., Deborah Arcoletto, an innovation director, encourages innovation teams to act like anthropologists before brainstorming workshops, observing the outside world and exploring all kinds of retailers. At Capital One, CTO Monique Shivanandan hosts trips to rub shoulders with the people behind startups and famous innovation houses like Google.

But just as too many constraints will squelch creativity, too much blue-sky thinking can take you out of orbit. To foster innovation, IT leaders must balance creativity with control. A PricewaterhouseCoopers survey of 1,757 executives found that 78 percent of the most innovative companies structured their creative efforts, compared with just 66 percent of less-innovative ones.

Balancing structure and creativity, however, often means designing new processes. When ►►

.....**39%** Organizations that say the biggest barrier to their digital transformation is the lack of a sense of urgency. MIT/Capgemini

creating its Digital Innovation Labs two years ago, Capital One replaced its waterfall development methodology with agile processes. Because agile places designers side-by-side with developers, it meshes the creative with the doable, Shivanandan says. "The designers aren't thinking up ideas that are impossible to build," she says. "And it's much more fun for developers because they're not just coders; they're building along with the designers."

One of the structured creativity guidelines at the \$21.4 billion bank is that innovation labs must include between 20 and 45 people. Too small, and the group could lack the necessary diversity; too big, and it could become unfocused, bureaucratic and "more like a day job," Shivanandan says.

It's crucial to find structures that work for what innovation consultant Chris Trimble calls "the ignored side of innovation"—namely, execution. Unlike with traditional project management, innovating companies are attempting to implement the new while still meeting day-to-day demands, says Trimble, co-author of *Beyond the Idea: How to Execute Innovation in Any Organization*. Rather than shoehorning innovation into employees' slack time, he says, companies need to combine dedicated teams with other staff that divides its time between daily work and innovation. "That's a structure designed to do both jobs at the same time."

While employees at Hershey are encouraged to seek insights from unlikely sources during the exploration phase of innovation, they focus on a business goal, such as product development or process improvements, Arcoleo says. "They're not floating around untethered." Ideas are captured and executive sponsors screen, sort and rank them. From Hershey's Simple Pleasures to Rolo Minis, most products that the \$6.6 billion company has launched in recent years have gone through a similar process.

"There are times to be convergent, or structured and analytic, and times to be divergent, or open-minded and creative," she says. "It's important that the project champion signals to the team which mind-set to be in, so people know how to behave."

Mary Brandel is a freelance writer based in Massachusetts.

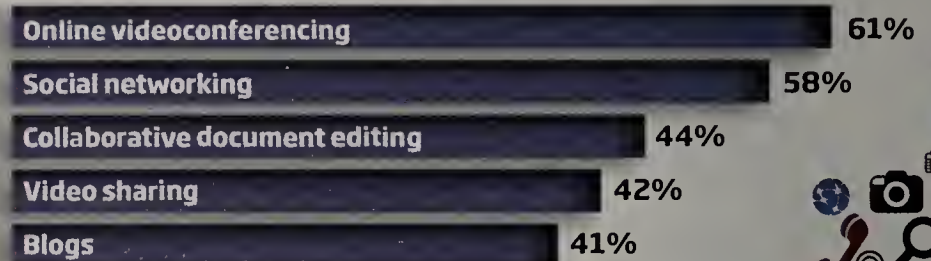
"They're not floating around untethered."

—Deborah Arcoleo,
Innovation Director,
The Hershey Co.

Social Adoption: Still Room to Grow

Eighty-two percent of businesses report using at least one social technology, but adoption is leveling off

Social tools currently in use by businesses:



MULTIPLE RESPONSES ALLOWED

SOURCE: MCKINSEY GLOBAL INSTITUTE SURVEY OF 2,609 BUSINESSES, NOVEMBER 2013

Shoppers Say Mobile Deals Feel Creepy

Consumers are becoming more aware that they can be tracked while they walk around stores—but plenty still feel uncomfortable with the idea, according to a survey.

Nearly half of respondents say they would find it invasive if a store sent them a special offer via text message for a product they were walking past at that moment, according to ISACA, a nonprofit IT security group.

One-third of the survey's 1,216 U.S. respondents say they would also find it invasive if the store sent a discount coupon to their smartphone as they walked in the door. People want to use their mobile devices to help them shop, but many don't want retailers to track their location while they do it, ISACA researchers say.

The results shed some light on consumer attitudes regarding the emergent field of location-based marketing, in which stores use tracking devices like Wi-Fi beacons to push super-localized ads to shoppers.

One-third of respondents say it would not feel invasive to receive discounts via text or have clerks greet them by name even if they're strangers.

—Zach Miners

.....**72%** Global companies that suffered from insider fraud in 2013, up from 67 percent in the previous year. Kroll Global Fraud Report



Marketing



Dealer Network

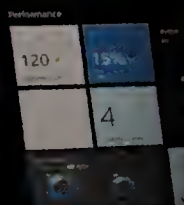


Customer
Care

Celso Guiotoko
Chief Information Officer

Nissan

Microsoft Dynamics



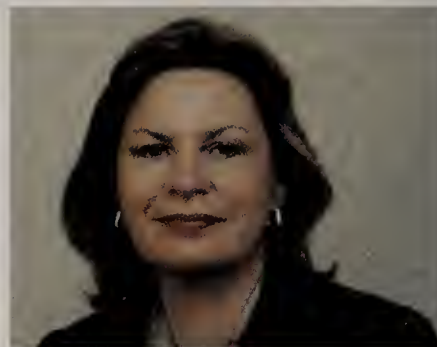
Connected teams, an intuitive CRM, happy drivers.

When Nissan was looking to deliver the best possible experience at every step of the ownership cycle, they chose a Microsoft Dynamics CRM solution. With one unified customer view, Nissan's teams will be able to close sales quicker, resolve issues more efficiently, anticipate needs before they arise and, ultimately, do one simple thing — make happy.



Microsoft
Dynamics

CRM | ERP | SCM | HR



Cam Sells, COO,
Event Connections

EVENT CONNECTIONS

Getting Documents Under Control

BY STEPHANIE OVERBY

THE PROJECT :: Implement software to design and deliver documents incorporating customer data at a growing regional events planning collective.

THE BUSINESS CASE :: Event Connections has a variety of revenue streams: a concierge program that helps people plan events like weddings and conferences; a membership program that assists 80 event-industry vendors with marketing; and its own meeting-and-event-space leasing program. Each of those businesses has unique document-generating needs, such as creating leases and membership agreements, and drawing up food and beverage contracts and event time lines. Founded in 2011, the company has grown fast. But creating those documents (Word documents, Excel spreadsheets, interactive PDFs) was a time-consuming, manual process—one that fell to company leaders. “We had to handle that at the executive level because there was so much potential for error,” says Cam Sells, the company’s COO.

FIRST STEPS :: Sells had explored a few options in the past but found them too rigid. Then she tested out Hewlett-Packard’s HP Relate software at a conference last April. “We needed a solution that was flexible enough to create lots of different kinds of documents, pulling data directly from Salesforce.com,” says Sells. With HP Relate, she says, “There were no limitations.”

The company rolled out the tool the same month. “The learning time was very quick,” says Sells. “And you don’t need any development assistance, unlike the typical IT project that can take six months or a year.”

It takes a few hours to create a document template (identifying the forms and data required), but anyone can do it.

Document generation—a task that’s now handled by the administrative team—takes just a few minutes. “That frees up our executives for doing things like looking at strategy, business development, and growth,” Sells says.

While the original plan was to use the software for leases and contracts, the company has been experimenting with using HP Relate to create other branded materials, like time lines for event planners. “Anything you can imagine can be put together in a template from customer data,” Sells says.

WHAT TO WATCH OUT FOR :: Prior to implementing HP Relate, Event Connections had two databases—one for Salesforce.com and another that generated its invoices. “Everything had to be entered twice. There was no consistency,” says Sells. “Any time you’re running two databases, you never have parity.”

Rolling out the new documentation platform was a good excuse to move to a single data source, but replicating the processes from the invoicing database was difficult. “We knew what we needed documents to look like and what data we needed to have, but we had to keep going back into Salesforce to make sure it was producing the data correctly,” says Sells. The second database is still running in parallel (some historical data has yet to be replicated), but will be retired this year.

Taking the time to think about what the business requirements are before jumping in to build a document is also important. “Take a really good look at what your needs are first, so you’re not doing it again and again,” Sells advises.

Stephanie Overby is a freelance writer based in Massachusetts.

.....**10%** Organizations using advanced HR analytics to help business leaders solve talent challenges. Bersin/Deloitte



The Two Metrics That Matter

CIOs need to be prepared to explain how their expensive IT project will improve the numbers every CEO cares most about **BY ADAM HARTUNG**

Twenty years ago I was geared up for a meeting with the CEO. I was all ready to tell him how much better the new IT projects were going to be.

When I walked in to meet with him, he looked at me and said, “So, regarding today’s discussion, will this sell more stuff—or save me money?”

I wanted to die.

The new IT would be better. It would be faster. Long-term it would be cheaper, but initially it was going to cost a lot of extra money. I felt like it was the right thing to do, but I was not prepared for his simple question. How would what I wanted to do either sell more stuff or save the company money?

A new book, *Business Cases that Mean Business*, by Jim Maholic, makes much the same point. He lays out in great detail how to create and present a compelling business case for a big IT project. But he says it all starts here: “A business case is about business. Business is about money—making more money than we spend and spending effectively so that we either make more money or spend much less money.”

Crisp, Credible Numbers

Maholic says most business cases are good at computing the costs of the project and identifying the benefits. Where they often fall short, he writes, is on providing crisp and credible numbers detailing the financial benefits of the project.

Remember: Business executives listening to your proposal are wondering: Why is this project worthy of a chunk of our limited pool of capital? Why should we do anything? And why must we do it now?

“Too often,” Maholic says, “business case developers overlook the single biggest competitor of every project—doing nothing!”

We live in a world where we seek followers on Twit-

ter, friends on Facebook and discussions on LinkedIn. We track operations with ERP and customers with CRM. We communicate with customers and vendors on the website. But how often do we know whether what we do either sells more stuff or cuts costs?

Missing What’s Important

Metrics like page views, followers and database requests all provide data about business improvement. But it’s too easy to get wrapped up in those metrics without tying them to what really makes business leaders happy. We lose sight of the two key metrics that CEOs love.

And then there are the follow-up questions: *How much* more stuff will we sell? *How much* will it cut costs? Here’s where an initial lack of clarity leaves us unable to offer specific answers. We’re reduced to mumbling, “Well, I’m not sure, but it will allow us to do this a lot more, and what we do will be a lot better, and we can respond faster, and I think long-term it has to be cheaper.” But that isn’t very convincing.

It’s especially less-than-convincing if the competition is breathing down your neck and the C-suite is focused on the quarterly and annual earnings reports to the board—and to investors.

In my 30 years as a C-level exec and consultant, the biggest communication breakdowns I’ve seen occurred when projects promised “more, better, faster” but were unclear about the P&L effect—the top and bottom lines.

Great leaders, including great CIOs, never lose track of how to answer the most important question they’ll be asked every time they propose investing in a project. Repeat after me: Will this sell more stuff, or will this cut costs?

Adam Hartung is CEO of Soparfilm Energy, an adviser on innovation, and the author of *Create Marketplace Disruption*.

The biggest communication breakdowns occur when projects promise “more, better, faster” but are unclear about the P&L effect.

Taking a Cue from IT

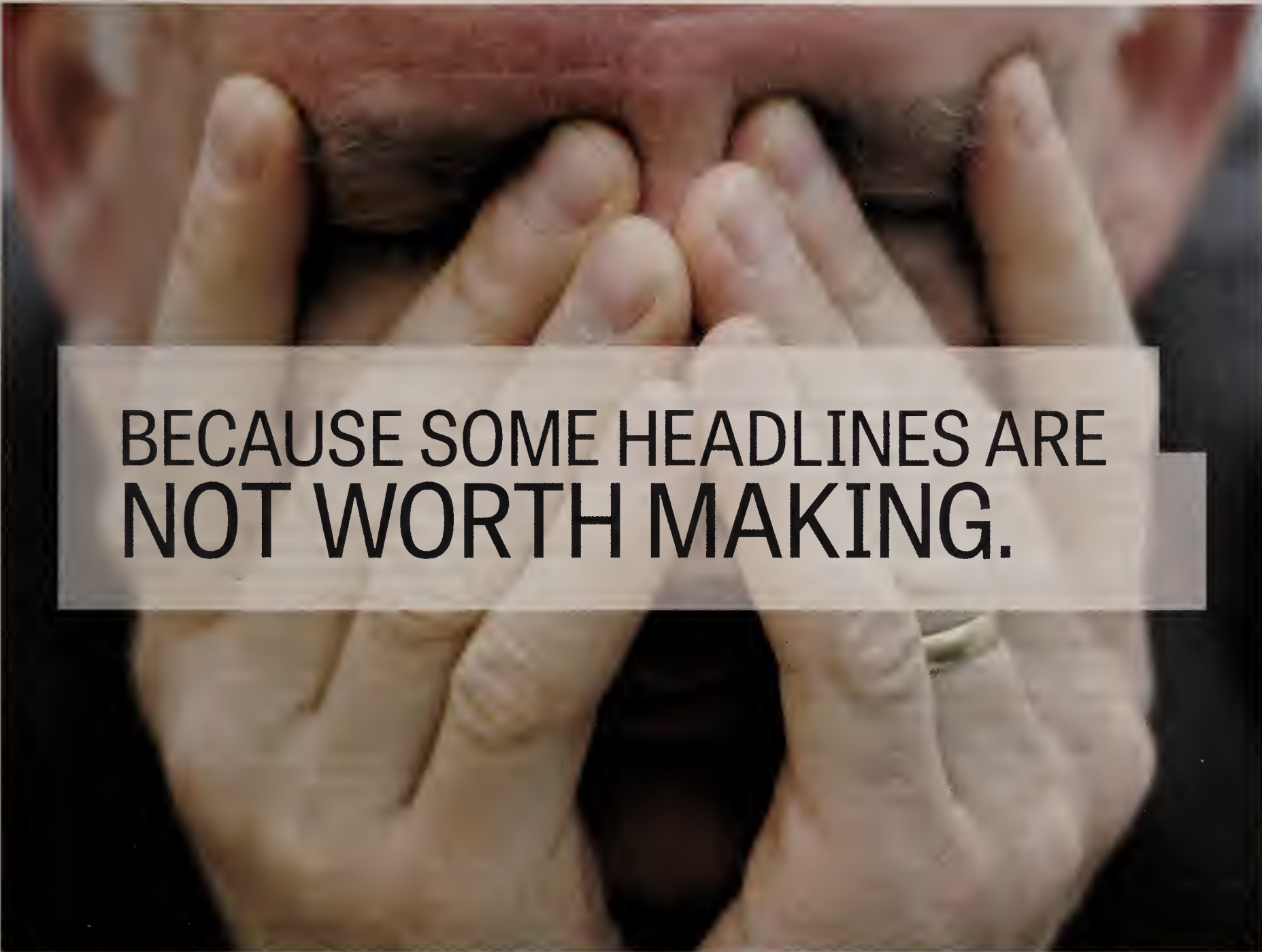
Hallmark applies portfolio management tools to the development of cards, toys and tchotchkes **BY STEPHANIE OVERBY**

This February 14, 142 million Valentine's Day cards will be exchanged, not even counting packaged kids' valentines. It's the second-biggest holiday for greeting cards (Christmas is the biggest), and a critical time for Hallmark, which creates lines of cards, gifts and other products each season. At any one time, the \$4 billion company has 100,000 active SKUs going to 40,000 retailers. The goal is to crank out brand-new and innovative products throughout the year while getting it all to customers in time for pre-holiday shopping. "You don't manage that on a spreadsheet," says Hallmark CIO Mike Goodwin.

Until recently, the ability of Hallmark's consumer products group to govern issues like capacity planning, productivity and portfolio management was limited, says Goodwin. Three years ago, the group adopted the Planview portfolio-management tool that IT had been using to manage its ▶▶▶



PHOTO BY THINKSTOCK



**BECAUSE SOME HEADLINES ARE
NOT WORTH MAKING.**

Rebuilding trust is expensive. Protect your network with F5.

Your business-critical applications represent your company and your strategic advantage. A cyber attack can knock out those applications—while taking down your reputation and your revenue.

Deployed across a range of organizations, from enterprises to mobile network operators, F5® security solutions block a wide range of attacks while ensuring valid customers and employees have access to the applications that matter most.

Secure your brand from today's sophisticated attacks.

With F5, it's possible.

Learn how.
f5.com/ciosecure



Solutions for an application world.

own projects for more than a decade. "We took the rigor and discipline we've applied for years in the IT organization and applied that to product development to create more predictable outcomes," he says.

Using portfolio management—a tried-and-true IT concept—for new-product development helps companies bring discipline, control and transparency to product lifecycle planning and investment, says Daniel Stang, a research director at Gartner. "The topic is red-hot, as many [consumer] product companies see a competitive advantage to using portfolio management [this way]," he says.

Early Warning Signs

Hallmark can identify products with the longest lead times and plan backward from there. A real-time view into product development gives early warnings about resource bottlenecks that could delay launches.

For example, if Hallmark is simultaneously developing four techno-plush toys and a line of embedded-sound greeting cards, the new system allows the company to better manage the shared staff involved—from writers and illustrators to electrical engineers and product designers.

"We don't have infinite resources," Goodwin says. "There's always a tension between the products we want to launch for the season and what we can practically deliver."

Hallmark starts with a wide array of ideas. As data is collected on the costs and resources required, as well as on the potential value to customers, the staff narrows the field. For Blooming Expressions, a fabric flower that blooms to reveal a message for a special person, for instance, the staff came up with product design, messages and technology. Then they could see what it would take to make the product at scale and compare that to predicted market demand for it.

The portfolio management system has required Hallmark's creative types to adapt. For example, they weren't accustomed to entering their precise project hours into a system. "They might estimate it," says Goodwin. "In IT, we enter it exactly. To get the benefit [from the software], you have to collect the data." They also needed training not only in how to use the tool and its analytics modules, but also in how to create new work processes.

The company now tracks more than 1,000 products and resources in Planview and has generated 200 new ideas. IT also implemented a new process for customer special requests that's led to 26 new products so far. "We're better able to manage our schedule, manage our resources and determine our products," says Goodwin.

Stephanie Overby is a freelance writer based in Massachusetts.

Things You Need to Know

BITCOIN

1 THE DIGITAL CURRENCY FLUCTUATES. The bitcoin network launched in 2009 to little fanfare, but it has gained momentum due in part to periodic price surges. Bitcoins are essentially secret numbers transferred from one software client to another using public key cryptography. The virtual currency is traded on international exchanges, which determine its value according to demand. No bank or government controls bitcoin, making it a digital alternative to national currencies.

2 TRANSACTIONS ARE CHEAP. Online retailers fear they may lose money if a credit card transaction is reversed due to fraud. But bitcoin transactions are as good as cash: Transactions can't be reversed by a third party, and due to cryptography, bitcoins are impossible to fake. The extremely low transaction fees—a fraction of a cent—means bitcoin offers significant savings over credit cards, which charge retailers upwards of 4 percent of a sale.

3 REGULATORS ARE WATCHING. Bitcoin is legal, but if its economy continues to grow, regulators may get involved. No U.S. state has published digital currency guidance, but state regulators generally say that bitcoin businesses should be licensed, says Marco Santori, chair of the Bitcoin Foundation's Regulatory Affairs Committee. But state rules don't fit bitcoin's borderless system. "Thus, a global bitcoin business seeking to service customers in the United States must endure a grueling and byzantine state-by-state process of obtaining licenses for every state—even those in which they have no physical presence," he says.

4 YOU NEED TO KEEP AN EYE ON YOUR WALLET. The main focus of security concern is the software used to store bitcoins, called wallets. Bitcoins are transferred using public key cryptography, so if a private key for a stash of bitcoins is obtained by hackers, they have your money. Efforts are underway to create more secure wallets. Still, in an era when enterprising cybercriminals perform jaw-dropping data thefts, businesses may be uncomfortable leaving \$30,000 worth of bitcoins on their laptop. Some security-minded people print the private key for their bitcoins and keep the paper in a safe deposit box, says Gavin Andresen, chief scientist for the Bitcoin Foundation.

5 IT'S NOT MAINSTREAM. The currency's early adopters are mostly high-tech businesses, including VPN providers, online merchants and well-known websites such as Reddit and WordPress. The Chinese search engine Baidu is accepting bitcoins as payment for its computer security services. In the U.S., however, big companies have stayed away so far, perhaps due to regulatory concerns.

—Jeremy Kirk

5G Will Do More Than Speed Up Your Phone

The next cellular network standard, 5G, should deliver 10 times the speed of 4G—theoretically up to 10 gigabits per second. But as many more uses for wireless networks emerge, service providers may carve up their 5G networks and dedicate only part of that capacity to what we think of today as the mobile Internet.

A 5G mobile standard isn't in formal development yet and isn't likely to be available on commercial net-

works until 2020, according to Vish Nandlall, Ericsson's CTO and senior vice president of strategy.

Any 5G network will have to serve two masters, Nandlall says. Between wireless sensors, industrial equipment and consumer gadgets, in a few years there are likely to be 10 mobile connections per person. If 5 billion people join the mobile world, that's 50 billion connections that 5G networks will need to serve.

Not all of those devices will be hungry for megabits per second, Nandlall says. For example, remote sensors may need slow connections to achieve decades of battery life, while other pieces of the so-called Internet of Things may require much higher reliability than consumer phone calls.

"Every now and then, those calls drop, and that's probably not something that we want if I'm putting an industrial application on it," Nandlall says. For example, a device that controls the floodgates on a dam had better work correctly and at the right time, he says.

By moving to 5G, carriers should be able to keep cutting the price of mobile data, Nandlall says. Most users haven't recognized falling prices because their consumption continues to rise, but network efficiencies have slashed the cost of delivering a megabyte of data by about 50 percent each year, from about 46 cents in 2008 to between 1 cent and 3 cents now.

—Stephen Lawson

When you're ready to invest in your organization's future.

You are ready for American Public University.

American Public University is ready to help your team succeed. Your employees can manage their personal and professional lives while pursuing a respected degree online — at a cost that's 20% less than the average in-state rates at public universities.*

StudyatAPU.com/CIO

*College Board: Trends in College Pricing, 2013

We want you to make an informed decision about the university you choose. For more about our graduation rates, the median debt of students who completed each program, and other important information, visit www.apu.edu/disclosure.

 American
Public
University
Ready when you are.™

A Safety Net for the Cloud

A real-estate brokerage opts to back up critical documents stored in Google Drive

BY MARY K. PRATT

With about 1,000 employees and more than \$8 billion in home sales since 2006, online real-estate brokerage Redfin has a lot to lose if its cloud-based applications fail.

So Eric Hollenbeck, senior manager of IT and business services, decided not to rely solely on the redundancies touted by cloud providers. Instead, he deployed Spanning Backup early last year to ensure that critical documents on Google Drive could always be accessed and re-created.

"Whether you provide services to your organization via the cloud or on-site services, you should always have a robust, reliable backup service. You don't want to be that guy who doesn't have the data when someone comes asking for it," he says.

Holger Mueller, an analyst with Constellation Research, says Hollenbeck's approach is at the forefront of emerging best practices. He says IT

leaders should pay attention to the fine print in agreements with cloud providers, which often don't provide timely or complete data backup.

"It's all in its infancy, so many enterprises aren't getting this backup," he says.

Redfin in 2009 moved its email, contacts and calendaring from Microsoft Exchange to Google to reduce costs and management tasks. Hollenbeck says the move to Gmail also allowed Redfin to react more nimbly and scale more easily to handle its growing business volume and expanding, distributed workforce.

After the success with Gmail, Hollenbeck implemented Google Drive for document management in 2012. He says the move to Google Drive creates a leaner infrastructure and more collaborative environment for the company's employees.

However, while proponents often tout the built-in redundancies and

security that cloud vendors can provide, Hollenbeck says he saw the need for a dedicated backup service.

Redfin uses Spanning to back up Google Drive. Hollenbeck says he chose Spanning Backup for its scalability, ease of deployment and use, and competitive price. (Hollenbeck uses another backup service for email and calendar, but says he's considering switching to Spanning for those as well.)

Hollenbeck says Spanning doesn't just guarantee the documents survive in case of a catastrophe; it also ensures that Redfin can quickly access or re-create files as they were at specific times. That protects against not only technical problems but also human factors, such as a disgruntled employee who tries to doctor or delete documents.

Mary K. Pratt is a freelance writer based in Massachusetts.

Gatwick Airport Takes Off With a Cloud-First Policy

London's Gatwick Airport plans to become the first airport to move its central operational database to the cloud, as part of wider plans to consolidate its data centers.

The U.K.'s second-largest airport, which has undergone a major IT transformation since being sold by the British Airports Authority in 2009, is aiming to adopt a cloud-first policy as part of plans to reduce its server count from more than 800 down to just 250 over the course of three years.

"Everything at Gatwick is going to be cloud," says Anthony Lamoureux, who was Gatwick Airport's head of IT service delivery when he was interviewed. "The strategy is that the answer is cloud—now tell me why it can't be cloud."

A major component of the cloud-first plan will be to move Gatwick's airport operational databases off-premises. These industry-specific databases contain a wide range of logistical information that is critical to running an airport. For Gatwick Airport, this

includes terabytes of information about who is on a plane, where they are going, and what meals need to be served in-flight.

By placing this information in the cloud, Gatwick Airport expects to remove 90 to 100 servers currently devoted to running its operational database at its two on-premise data centers.

Parts of the system will go live early this year, making Gatwick the first airport in the world to use a cloud-based operational database, according to Lamoureux.

The cloud strategy is one of several forward-thinking IT initiatives that the airport is implementing. Others include a bring-your-own-device program for employees; adoption of end user tools such as the Yammer social network and Box.net's cloud-based storage; a partnership with Google to provide customers with a full map of the inside of the airport; and plans to send text alerts to passengers who are running late for flights.

—Matthew Finnegan and Ellen Messmer

VIEWPOINT



Arun Bhattacharya

SR. DIRECTOR, PRODUCT
MARKETING, ENTERPRISE
MOBILITY

Arun leads product marketing for Enterprise Mobility solutions at CA Technologies. Previous to CA Technologies, Arun was at Good Technology and Citrix Systems where he held key leadership positions, also in the Mobility space. He brings with him a rich 20 years of product marketing and leadership experience across Citrix, Intel, HP, Cadence and a few technology start-ups. He has an Industrial Engineering degree from India and an MBA from Rice University in Houston.

FOR MORE INFORMATION:

please visit www.ca.com/techinsights/mobility



Mobility's Potential for Productivity and Pitfalls

A recent IDG Research survey of IT professionals reveals that users are demanding two things when it comes to mobility: secure and reliable access to mission-critical software, and quick development of new apps and mobile services. But according to IT professionals, the demands are greater than their ability to fulfill them.

Arun Bhattacharya, senior director of product marketing, mobility solutions, at CA Technologies, talks about the challenges of bringing mobility into the enterprise and how to overcome them.

It's ironic that the one time users demand new technology, IT is having trouble delivering. What's going on?

I don't think enterprises thought that the mobility revolution would be as fast or as strong as it is. The deluge of smartphones and tablets has left a lot of IT people in a quandary. These devices started as consumer tools, and

don't. Customers using mobile technology to interact with the company translate to more revenue. CIOs have to comprehensively look at the interests of stakeholders, employees and their customers while addressing IT policies and mandates.

Another top issue is creating a unified experience for end users across devices. In the world of BYOD, that seems difficult. What's the best strategy for achieving this unified experience?

It's very important that users have an experience that's both consistent and contextual, even—and especially—if they are using different devices. In other words, mobile devices should be able to securely create and consume “content” within the context of the devices as related to their form factor (e.g., smartphone vs. tablet), platform type (iOS, Android or Windows) and location. The screen doesn't necessarily have to look the same on every

The screen doesn't necessarily have to look the same on every mobile device, but it should be optimized to what the user needs to do on that device.

inspired a big part of the consumerization of IT, but IT is grappling with the onslaught. This has happened so quickly that there hasn't been enough time for IT to think about mobility as a strategic initiative across the entire enterprise. IT hasn't been able to develop a unified, strategic vision of how mobility will impact the overall business—both internally and externally.

That relates to the respondents who say that adopting an enterprise-wide mobility strategy is one of their top plans over the next 12 months. What are the benefits of looking at mobility enterprise-wide versus by department?

CIOs are realizing that mobility will be an enabler in a variety of areas of the business. Some are instituting an “office of mobility” to create and execute an overall enterprise mobility strategy. Employees working with mobile technology are more productive and have higher job satisfaction than those who

mobile device, but it should be optimized to what the user needs to do on that device. If you try to make the experiences identical, you'll fail, but if you optimize for the device, you can help ace the user experience.

In the IDG survey, security ranks high among concerns. What can enterprises do to improve mobile security, either from an educational or technological standpoint?

Think about your overall mobile infrastructure, list all possible mobility use cases and take into account what “data” might be exposed in these usage scenarios. Subsequently, you also have to understand your industry's regulatory policies (e.g., HIPAA in healthcare), security policies and internal company policies. To the extent that you can think through all of these issues and come up with a solution to comprehensively “manage” how data will be used, created and consumed, you can more easily assess how it should be secured. ■

The Great SCHISM

Digital strategist or traditional CIO?

Our 13th annual **State of the CIO** research reveals a big split.

BY KIM S. NASH

When CIOs live in the IT house on the hill, they live well.

In our 13th annual State of the CIO survey, 25 percent of the 722 CIOs we surveyed report that the IT group is perceived by colleagues as a true business peer—or even a game-changer—that can create and launch new products and open new markets. These first-class CIOs identify their top activities as driving business innovation, cultivating partnerships and developing business strategy. They control the majority—65 percent—of spending on IT. They have an excellent relationship with the CEO, reporting to him and sitting on the executive committee. They draw on deep bench strength in the IT group and focus on external activities, such as meeting with customers. And like the CEO and the rest of the C-suite, these CIOs enjoy extra pay when the company reaches sales and profit goals. That's good stuff.

Toiling far from that exalted place, we find the 48 percent of CIOs who acknowledge that their IT groups are viewed by fellow employees as a cost center or service provider. Life isn't so grand there. Their top activities are improving IT operations, deploying new systems and controlling IT costs. Managing IT crises is also high on the list. That sounds like a CIO job description from 1995.

Whether an IT group is a game-changer or a cost center is the subjective judgment of our survey respondents from around the world. We had a strong global response this year, with 41 percent of respondents coming from Europe, the Middle East or Africa. Yet if someone self-reports that they're viewed as a cost center, that's pretty telling. As we plow through this period of digital disruption, where established rules for competing may no longer apply, some CIOs now

Whirlpool CIO **Mike Heim** is helping develop the company's Internet-of-Things strategy, which involves developing appliances that communicate with consumers through sensors.

question what they want for themselves. The profession is changing fast in an atmosphere where colleagues sometimes look upon a traditional IT group as a hindrance to corporate success.

Take heart: Our 2014 State of the CIO research reveals that core measures look good. For example, 44 percent of CIOs report to the CEO, up from 39 percent last year. Tenure is steady at almost six years, while average pay is holding at \$219,500. CIOs are carving out significant time to focus on building relationships with business leaders, some spending up to 25 percent of a typical week on it.

But the alarming split in the profession—between CIOs at the top of their game and those who aren't—will alter careers, and perhaps corporate futures as well. There are glaring differences in what the CEO wants this year from each kind of CIO. Cost-center CIOs must finish a major enterprise project, simplify IT and cut technology spending by a set percentage. Game-changers are being asked to lead product innovation efforts and enable global expansion. They make more—\$249,000, compared to a cost-center CIO's \$182,000—and report healthier relationships with the CEO and CFO. While the percentage of CIOs overall who report to the CEO is up, among game-changers that number is at 64 percent, while for cost-center CIOs it's only 37 percent.

"There is a polarization to what's happening," says Rich Adduci, CIO of Boston Scientific, a \$7.2 billion medical device maker.

This fracturing threatens the vitality of the CIO role. The divide is not due only to seemingly less capable CIOs; both the executive and the company play a part. In times of tumult—and the current dismantling and remaking of whole industries certainly qualifies—leaders often don't know quite what they want. A strategic CIO and an organization that views IT as simply a cost to be managed are as badly mismatched as a tactical CIO trying to keep up at a place that demands fresh thinking from IT. As Adduci puts it, "Either the CIO will win people over, either way, or he will get gone."

We see the angst. While 86 percent of CIOs in our survey say their role is becoming more important to business and 90 percent say being a CIO is increasingly challenging, just 65 percent say the CIO role is becoming more rewarding. And a worrisome 28 percent of respondents say they feel CIOs are

Slip Slidin' Away?

A substantial minority of CIOs say they feel sidelined. These same CIOs struggle with innovation and see an increase in shadow IT.

What you imagine for your professional future influences how you perform today. For some CIOs, things look dark: 28 percent say the CIO role is being "sidelined" and 52 percent say the CIO's future will be one focused on managing contractors, cloud and other IT service providers, according to our 13th annual State of the CIO survey.

Although they're in the minority, that sidelined 28 percent are worth some attention. Their behaviors and attitudes may indicate serious, but perhaps correctable, organizational problems. For example, those CIOs who say the IT group is perceived by colleagues as a cost center are much more likely to feel sidelined. They're probably under intense pressure to cut IT costs from old-school CEOs and CFOs. That's no fun. Nor is it good for the future of the company as business goes digital. Some CIOs are ready. Others clearly are not. Many are stuck somewhere in between, struggling with internal politics and old-style thinking, as well as with external economic and competitive forces they haven't seen before.

In higher numbers than the rest of our respondents, sidelined CIOs say they're asked to be innovative but aren't sure how to do that (52 percent versus 37 percent). Innovation may not be easy, but CIOs have an important role to play.

CIOs who feel sidelined control less of the IT budget than average among our sample of 722 IT leaders, and they're much more likely to be watching shadow IT increase. Overall, they spend more time on cost control, security and negotiating with vendors, and less time leading change and driving business innovation.

How can a sidelined CIO break out? There's no question that the CIO role is more challenging than ever, in part because anyone who shops at Best Buy suddenly thinks he can set corporate IT strategy, says Rich Adduci, CIO of Boston Scientific. Instant experts don't bother him, however, because he's willing to listen—to a point. "Let people have a voice, but don't lose your own," he advises.

Mentoring at all levels of the IT organization may help, says Rick Roy, CIO of CUNA Mutual. "We've got to increase the pipeline of tech graduates from school and then get deliberate about rotating technology leaders out of IT for part of their careers," he says. "We're creating leaders of the future."

—K.S.N.

being sidelined (see "Slip Slidin' Away?" above).

The question is, what can we learn from top CIOs who are flourishing in the new digital age?

Keys to the Castle

When you talk to leading CIOs about how they think and what they do, two major themes emerge: compensation and customers. Sixty-one percent of CIOs in our survey have part of their

A full-page photograph of Adam Noble, CIO of GAF, standing outdoors with his hands on his hips. He is wearing a light blue dress shirt and a dark patterned tie. The background shows a cloudy sky and some foliage.

Adam Noble, CIO at \$3 billion GAF, last year started sending IT staffers to collaborate directly with external customers "to help run their businesses better."

compensation tied to a specific corporate revenue or profit goal. These CIOs also report having far different priorities and expectations than the 38 percent of CIOs whose pay is not tied to financial performance. Those priorities and expectations fall into the category of strategic, outward-facing items, such as improving products and services, addressing increasing competition and enabling growth in emerging markets. In other words, the sort of endeavors discussed in private meetings of the board of directors.

Properly motivating CIOs, and all of IT, to get the most valuable performance out of them is a no-brainer for Chris Hjelm, CIO of Kroger, a \$96.8 billion grocery chain. He and nearly every employee at Kroger earns bonuses based on the company's financial results. In fact, Hjelm's entire bonus depends on achieving such objectives. Doing so ensures everyone is working toward the same goal, he says.

And that goal, of course, is serving the customer.

While customer focus is a high priority, nearly half of the CIOs in our survey—47 percent—have difficulty getting their

IT staff to be more business-oriented and customer-facing. This figure climbs to 50 percent for respondents outside North America, significantly higher than the 42 percent for North American respondents. CIOs who can't drag technical staff into this new world sometimes just have to replace them.

Hjelm tries to keep his staff laser-focused on customers. That's not hard in the grocery business because everyone shops. But he also strives to show even his back-office IT staff how their work affects sales, customer satisfaction and other corporate metrics. For example, an engineer in the data center knows that systems availability directly affects revenue. "It's vital they understand," he says.

No CIO can succeed today without developing antennae sensitive to customer behavior, says Cora Carmody, CIO of Jacobs Engineering Group, a \$10.9 billion technical services provider.

Carmody meets regularly with customers, including recently with NASA and an Australian mining company. She does it to learn about their issues, but also to share her IT expertise. Recently, one of Jacobs' colleagues told her that his external

customer was concerned about controlling IT costs, so Carmody offered to do a presentation on the topic for the customer.

"I've always done that," she says. It's a way to build IT's credibility within the company as well as collect sparks about potential new products and services, she says.

New ideas come from imagining what consumers go through, says Rick Roy, CIO of CUNA Mutual Group, a privately held company that provides insurance, asset management and other services to credit unions and their members. That's how a lucrative new mobile product was born at CUNA Mutual two years ago. At a car dealer, a consumer wants a loan but may not want to work with the dealership or head home to contact banks. CUNA Mutual came up with a smartphone app that lets customers get a car loan from their credit unions, then and there.

"If you work your way backwards from the consumer, you think about what kinds of things they're looking to do," Roy says. "How can we help?"

About \$1 billion in loans have been secured this way so far, he says.

GAF goes even further. Adam Noble, CIO at the \$3 billion privately held building materials manufacturer, last year started to send IT staffers to collaborate with external customers directly. Noble brought his internal experts in security, mobile and cloud to talk about, among other topics, why it's better to do business with GAF. "People buy your products, yes, but they also buy from you because you have service no one else offers," he says. "We [in IT] are collaborating directly with customers to help run their businesses better." GAF expects to expand a product offering and service this year based on this work, he says, but declines to provide details.

The experience has been a morale booster and an education for his internal experts. "Individuals in my organization get to explore and get exposure," he says.

Step Up, No Excuses

One thing thriving CIOs have in common is that they continually strive to make the IT group indispensable in diverse areas of the business.

Don't wait to be asked into the business fray, Carmody says. Prove IT's worth by stepping into critical situations. Jacobs acquires a lot of companies, and Carmody has carved out a specialty for her IT group in those situations. When Jacobs recently submitted an offer to buy construction consulting company Sinclair Knight Merz for \$1.2 billion, Carmody appointed one of her vice presidents to the due diligence team before the deal and another to lead the integration after.

Two Different Jobs?

CIOs viewed as business peers or game-changers (a combined 25 percent of our survey respondents) are focused on a much different set of activities than CIOs who run IT groups that are viewed as back-office operations (48 percent)

CIO's Top 3 Activities

IT GROUP: Business Peer or Game-Changer	IT GROUP: Service Provider or Cost Center
1. Driving business innovation	1. Improving IT operations
2. Cultivating the IT-business relationship	2. Deploying new systems
3. Developing business strategy	3. Controlling IT costs

SOURCE: STATE OF THE CIO 2014, 722 RESPONDENTS

At Kroger, Hjelm has set up a research-and-development group within IT that invents new technologies and new ways to apply established ones. This R&D team is behind one of the grocery industry's most visible customer innovations in years: Kroger's QueVision system, which uses analytics to predict the shopping rhythms of customers and then suggests how to staff checkout lanes to cut wait times. An infrared camera counts people coming into the store. Based on time of day and day of the week, a proprietary algorithm predicts how long each person will shop. A digital display at the front of the store shows how many checkout lanes are currently open and how many will be open in 30 minutes. The system has reduced the time between when a shopper steps into a line and when the checkout process starts from four minutes to 30 seconds.

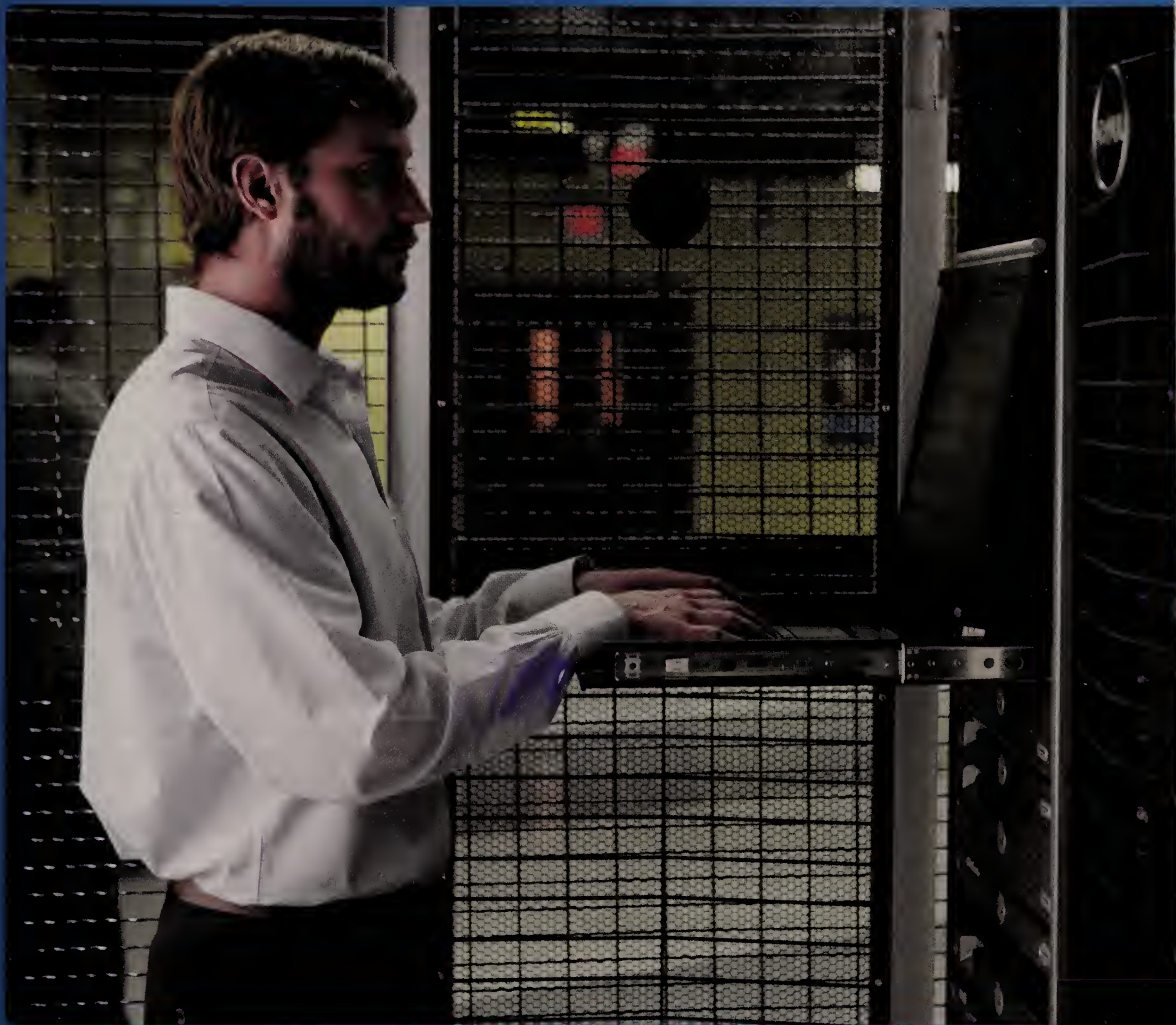
"We are pushing the envelope on what's possible," Hjelm says.

Rearrange IT

Some of the most intriguing modern technologies move way beyond the IT group and encompass the whole company. For example, Gartner says a digital industrial revolution—3-D printing that will enable next-generation manufacturing—will redefine how companies compete. Crowdsourcing ideas online will become the norm in engineering, advertising, product development and other departments. These aren't discrete projects with defined borders; they are new ways for companies to operate.

The elevation of IT's importance will force CIOs to change the operating model of the IT group. That includes more outsourcing and more internal "islands of specialization," according to a recent study by A.T. Kearney. The consulting company predicts we'll see more nimble, autonomous teams of IT experts in fields such as mobility or customer experience starting to collaborate closely with business groups to move fast on new ideas.

Kroger has a team dedicated to mobile computing. "Iterative development requires a closer relationship between business and IT professionals," Hjelm says. That's especially true when you are tweaking your mobile app every six weeks. Next up: using grocery lists and store maps to help shoppers navigate the store as efficiently as possible.



Go beyond one-dimensional performance monitoring.

Visualize, analyze and optimize your entire virtual data center.

Dell Foglight for Virtualization delivers heterogeneous operations performance management to help you increase VM density and lower operational expenditures.

software.dell.com/Beyond



Software

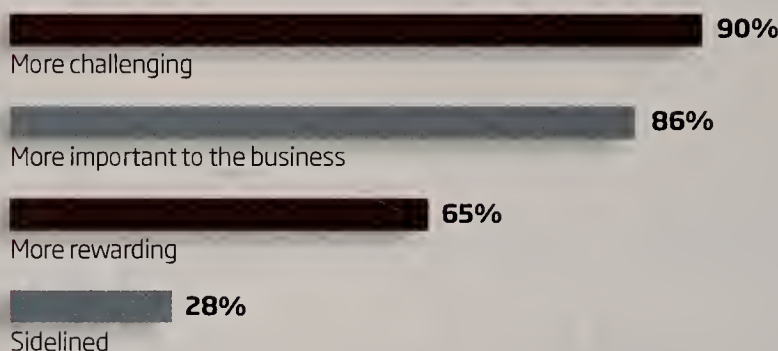
CIOs must recognize that old IT structures may no longer work, says Mike Heim, CIO of Whirlpool. Since joining the \$18.1 billion appliance manufacturer in May 2012, Heim has reorganized IT to better respond to business demands—he calls it “aligning our operating model to the business model.” It took his outsider’s eye to spot the need. Before coming to Whirlpool, he spent 33 years at Eli Lilly, the last eight as global CIO. Pharmaceuticals and appliances couldn’t be more different, he says. Lilly is a high-margin business focused on corporate customers. Whirlpool is a lower-margin consumer business with quick product cycle times.

What he learned quickly about Whirlpool was that different parts of the world require different shapes, sizes and functions in their appliances, which means the giant global company is a surprisingly regional business, he says. Yet when he arrived, he found a centralized IT organization that was slow to respond to local needs and too focused on internal IT processes and metrics rather than business metrics. IT defined itself as a supplier rather than an innovator, he says. “The model created IT scale but not competitive business advantage.”

Heim moved e-commerce and applications to regional offices under regional CIOs. Now both nuances and broad differences in local markets get quicker IT attention and, therefore, faster business results, he says.

Vital Signs

The CIO role is becoming:



Multiple responses allowed

SOURCE: STATE OF THE CIO 2014, 722 RESPONDENTS

Relationship Problems

Despite the talk from Gartner and others that the CMO and marketing group are poised to take dollars away from IT, our survey finds that CIOs expect the portion of tech-investment money under IT’s control will remain pretty much the same in the next three years: 65 percent now and 66 percent in 2017. Maybe CIOs are sticking their heads in the sand on this issue. Or maybe they’re interpreting the facts differently: For Adduci at Boston Scientific, the worried talk about how entities other than IT are funding technology projects misses the point. For example, 61 percent of enterprise technology projects are not financed by IT, according to a recent survey of 1,200 busi-

ness executives conducted by IDC. But that’s as it should be, Adduci says. If a project has a clear business value, funding and sponsorship should come from the non-IT business groups that benefit, he says. We’ve moved beyond IT for IT’s sake, after all.

CIOs may lose control of some IT spending. But the smart ones accumulate capital in the form of credibility and influence. It’s in the ability to build relationships, however, that the divide between CIOs is most stark.

The activities that game-changer CIOs plan for elevating IT’s relationship with peers this year differ from those of cost-center CIOs. Game-changers, for example, more often plan to deepen the IT bench. Doing so, of course, makes a stronger IT group. But it also makes delegation easier, freeing up time for strategic pursuits. And it instills confidence in business peers that the IT team can handle demands, Carmody says.

“Business can see we can solve their problems quicker. That’s a huge plus.”

In enhancing a personal work relationship with C-level peers, cost-center CIOs may be taking some ineffective steps. For example, they report planning to provide advice to others more often than planning to seek advice, which probably won’t win friends, Heim says. CIOs do best when they listen first and ask lots of questions to understand an issue. “You have two ears and one mouth for a reason,” he says.

Another example: Cost-center CIOs don’t plan to—or perhaps can’t—join C-level peers in customer meetings as often as strategic CIOs. Attending industry events together, socializing outside of work and celebrating wins outside of work are also more popular relationship-building activities for game-changers than for cost-center CIOs.

What’s Best for You?

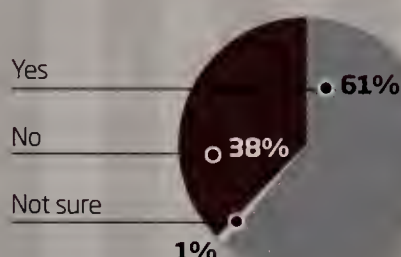
IT leaders who question whether the role is rewarding may want to think about why they’re in the job. If optimizing the maintenance of legacy systems is satisfying, there’s certainly less of that now for a CIO. But creativity—the ability to create something—is on the rise as a trait for CIOs. “I find,” says Roy of CUNA Mutual, “that being able to use all the technology available to us today to do things that weren’t possible before is very rewarding.”

Certainly, no CIO is all one kind or another. The best CIOs, however, are nimble. Heim, for example, is helping develop Whirlpool’s Internet-of-Things strategy, contemplating wild, business-changing ideas for dishwashers, refrigerators, washers and dryers that communicate with consumers through sensors. But he’s also devising a technical plan for phasing out Windows XP—an important endeavor, although decidedly less glamorous. “Realistically, you have to spend time on all those activities,” he says. “Your best tools are stamina and natural curiosity.” **CIO**

Contact Managing Editor Kim S. Nash at knash@cio.com. Follow her on Twitter: @knash99.

Pay for Performance

Is any part of your compensation package tied to overall corporate sales or profit levels?



This group of CIOs is significantly more likely to:

- ➔ Live in North America
- ➔ Sit on their company's business executive committee
- ➔ Command higher average salaries
- ➔ Spend time cultivating the IT-business partnership
- ➔ Spend time in the field to better understand their business

Compensation: Holding Steady

Average total compensation



29

Perceptions Matter

How you think business leaders perceive the IT group:

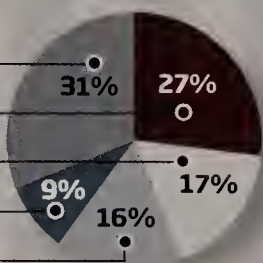
Service provider

IT partner

Cost center

Business game-changer

Business peer



CEO or CFO?

To whom do CIOs report?

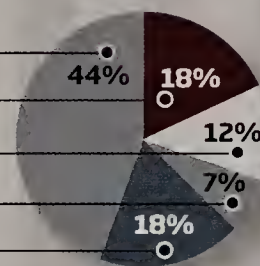
CEO

CFO

COO

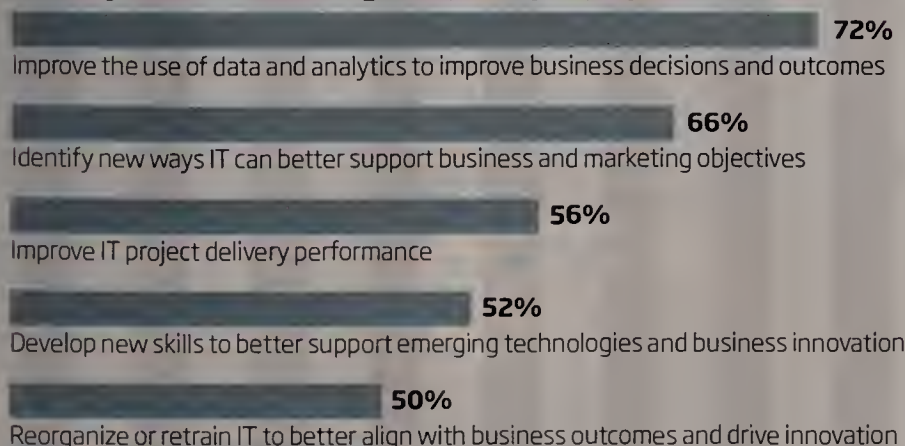
Corporate CIO

Other



Top 5 Tech Initiatives for 2014

CIOs say these are their highest priority IT projects



CIO Tenure: Looking Good

How long have you been in your current position?



METHODOLOGY Members of CIO's global audience were invited to participate in an online survey between September 4, 2012, and September 23, 2013. Results are based on 722 respondents who indicated they are the head of IT at their company or business unit. Forty percent of respondents are from North America. The margin of error on this sample size is +/- 3.65 percent.

—Carolyn Johnson, Research Director

peer advice from the **cio executive council**

connect



30

SOUNDING BOARD

3 Views From the Cloud

Cloud has made these IT organizations more agile, more strategic and better able to hone a competitive edge

MIKE BENSON, DIRECTV

A PATH TO AGILITY, BUSINESS ENGAGEMENT

The cloud has helped me, as a CIO, become more agile. Cloud apps tend to be very flexible and easy to bring up and pilot. If it isn't a good fit, we can easily go in another direction.

We began pursuing cloud-enabled apps four years ago. Today, the IT department delivers business capabilities more quickly than we could with traditional applications. Two years ago, our commercial business relied on manual processes such as faxes and had no visibility into leads. We decided to experiment with Salesforce.com for lead generation; we brought the system up quickly, and it worked out well. Now, we're taking Salesforce.com to the next level in our direct sales organization as a lead-to-order tool.

Now that we don't need a capital expense every time we want to start something up, expenses don't necessarily show up in the IT budget—they are in the budget of the ▶▶▶



Mike Benson,
CIO, DirecTV



Jeff Hutchinson,
CIO, Maple Leaf
Foods



Mark Popolano,
CIO, ProSight
Specialty Insurance
Group



The **CIO Executive Council** is a global peer advisory service and professional association of more than 500 CIOs, founded by CIO's publisher. To learn more, visit council.cio.com.

ILLUSTRATION BY ANASTASIA VASILAKIS

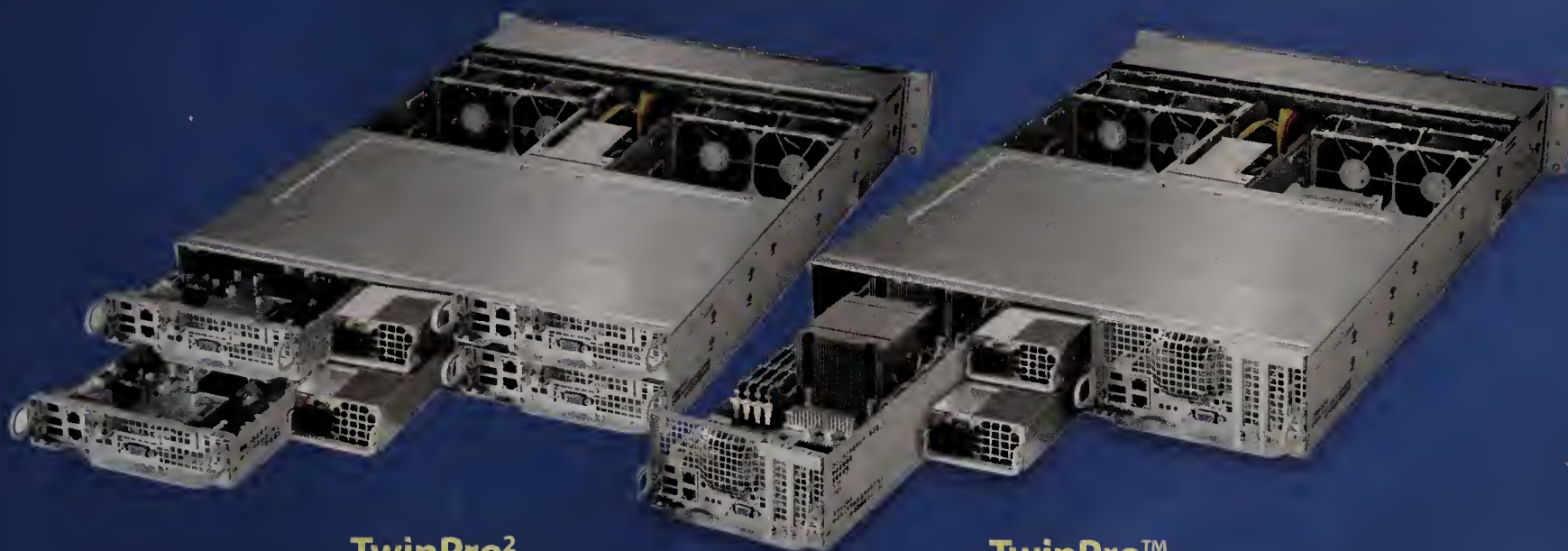


New! TwinPro™ Architecture

Four or Two Hot-Pluggable Nodes in 2U

FDR(56Gbps)/QDR InfiniBand • 10GBase-T • Up to 12 HDDs/Node

Up to 1TB DDR3-1866 MHz in 16 DIMMs • Redundant Platinum Level Power Supplies • SAS 3.0 (12Gbps)



TwinPro²

SYS-2027PR-HT/C0/C1(T)R

TwinPro

SYS-2027PR-DT/C0/C1(T)R

Four or two hot-pluggable systems (nodes) in a 2U form factor.
Each node supports the following:

- Dual Intel® Xeon® processor E5-2600 & E5-2600 v2 product families; QPI up to 8GT/s
- Up to 1TB ECC DDR3 up to 1866MHz memory in 16 sockets
- 1 PCI-E 3.0 x16 slot; 1 PCI-E 3.0 x8 slot (TwinPro)
- PCI-E SSD, dual SFP+, or GPU via "0 slot" flexible rear expansion
- LSI 3008/3108 controller for 8x 12Gbps SAS 3.0 ports
- Intel® C606 controller for 6x SATA3/2 ports
- Dual Intel® X540 10GBase-T (-T versions);
or, Intel® i350 dual port Gigabit Ethernet
- 8x (TwinPro) or 6x (TwinPro²) hot-swap 2.5" HDD bays
- Onboard FDR/QDR InfiniBand
- 1280W / 2000W redundant Platinum Level (94%) power supplies
- IPMI 2.0 + KVM with dedicated LAN
- SATA-DOM support



www.supermicro.com/TwinPro

© Super Micro Computer, Inc. Specifications subject to change without notice.
Intel, the Intel logo, Xeon, and Xeon Inside are trademarks or registered trademarks of Intel Corporation in the U.S. and/or other countries.
All other brands and names are the property of their respective owners.



department that requested the service. From my perspective, departments are now more engaged in our conversations—they understand where the value comes from, and they are more invested in the solution because they have financial skin in the game.

MARK POPOLANO, PROSIGHT SPECIALTY INSURANCE GROUP
GAINING A COMPETITIVE EDGE

In established organizations, moving to cloud services requires careful consideration of the risks associated with transferring responsibility to a provider while ensuring that the organization's ability to accept process and functional changes is within tolerable limits. The costs may appear relatively straightforward, but consideration must be given to the longer-term impacts related to delivery time frames, business service-level expectations and possible loss of competitive advantage.

At a younger organization such as mine, the IT organization can evaluate and choose technologies in the same way a venture capitalist examines investments. We concentrate our efforts toward fast adaptation in areas that will bring the greatest return to our business segment, and we minimize expenditures in areas where just being "good enough" won't hurt us. The IT organization focuses on examining the short- and long-term risk-and-reward balance of technology and on choosing providers that can respond to the changing demands of our customer base while keeping our costs within an acceptable range.

The cloud allows smaller companies to compete effectively with much larger entities on both product enrichment and speed of delivery. Barriers to entry due to expensive and time-consuming development efforts are quickly being eliminated.

JEFF HUTCHINSON, MAPLE LEAF FOODS
FASTER DELIVERY OF STRATEGIC SOLUTIONS

Enabling cloud capabilities will be an integral part of our success as we continue to move to an open architecture based on commodity hardware that will run our core, on-premise SAP ERP. With SAP offering more cloud-based solutions, such as CRM and databases, we will have the flexibility to choose between on-premise and cloud-based information solutions.

Cloud capabilities open up a whole new world of opportunities. My team can develop and deploy solutions that support our changing business needs. Just recently, we implemented cloud-based tools for our merchandisers who are responsible for in-store visits so they can ensure that products are properly displayed and promoted. We integrated a cloud-based application on mobile devices, and within months, merchandisers had a very practical and easy-to-use solution. In a traditional environment, this would have taken much longer and cost much more.

This is more than just an infusion of new technology; it's an opportunity for a leadership shift. New capabilities like this allow leaders to shift our focus from merely managing lifecycles and environments to continuously responding to ever-changing business strategies, transforming businesses, strengthening governance and providing value to our organizations.

TAKE Note

Prepare to Lead Change

DOWNLOAD IT-led business transformation initiatives require IT leaders who embrace the role of innovator. However, a survey of 200 CIOs and senior IT leaders revealed that 42 percent ranked their IT leadership team as "not proficient" at presenting "compelling visions of IT-enabled business opportunities," which indicates that CIOs don't generally view their top lieutenants as business innovators. Find out how to effectively develop the IT leadership team and ensure success for your 2014 initiatives in the report, "Creating Your Future-State IT Leadership Team Today." The study identifies leadership development techniques that work (such as mentoring) and those that don't (such as executive education classes). council.cio.com/leadchange

Move Up the Value Chain

REGISTER CIOs in the CIO Executive Council have developed a half-day Game Changer workshop to help you and your IT leadership team create more business value. Engage in an open discussion with a CEO to get a first-hand perspective on how IT can make an impact, and walk away knowing what it takes to move your team forward. Attendees will gain exposure to techniques that they can use in their own organizations. Check out the full 2014 schedule of Game Changer workshops. council.cio.com/gamechanger

Reinventing the C-Suite

ATTEND This spring, the CIO Executive Council will unveil a new conference panel format—developed by leading CEOs, CIOs and other business thought leaders—to help leadership teams innovate, transform and collaborate. In the style of a lively talk show, members of a major corporation's C-suite will share how they are working together to create a more innovative and adaptive enterprise. Be part of this groundbreaking event during the Premier 100 IT Leadership Conference, March 2-4, 2014 in Tucson, Ariz. council.cio.com/premier100



SURE, EVERYONE'S TALKING CLOUD MIGRATION

WE BRING IT DOWN TO EARTH

When a cloud was just a cloud, NTT DATA was there—delivering customer-centric IT applications and infrastructure to businesses across the globe. Now that “The Cloud” has pervaded the landscape, we’re here to demystify what that means with business strategies and a technology roadmap that give you the flexibility you need to pursue new growth anywhere and everywhere your customers and prospects live. Talk to us about a cloud strategy grounded in reality. Visit NTTDATA.com/flex

THINK SMART. ACT FAST. FLEX YOUR BUSINESS.

NTT DATA
Global IT Innovator

Shaking Up the Mind-Set

For Altria's CIO, the first step toward enabling an innovative business was to establish a culture of innovation within IT **BY DAN CORNELL**

Altria, like many consumer packaged goods companies, uses innovation for competitive differentiation. Our company has a rich heritage of innovating products, processes and programs within our core tobacco business.

In early 2012, our new CEO challenged us to speed up this process by thinking of innovation as a total system.

Our information services (IS) team has always provided high-quality services. The question we began to ask ourselves was, "How can we use technology to help accelerate innovation for the company without sacrificing our service levels?" We immediately determined that we really had to look at the culture within the organization and find creative ways to help employees meet our CEO's challenge.

We knew there wasn't just one action we could take; we needed to look at all the roles, skills, processes and problem-solving approaches in IS. Partnering with an outside company, we developed a few creative ways to change our culture, using the motto, "Think different, work different, act different." For instance, we now bring in speakers every quarter to provide an outside perspective. One speaker discussed the evolution of the publishing industry, which inspired us to look for parallels in the consumer products industry; another was Douglas Merrill, the former CIO and vice president of engineering at Google, who talked about the culture of innovation in that company.

We've also set up an innovation room, featuring interactive learning stations that center on various themes, such as the importance of learning from failure. Another component is our "brain breaks," where twice a month, employees get a two-hour block of time to discuss a particular idea with their peers. A recent topic was "the magic of doing one thing at a time versus multitasking." It gives them freedom

from their day-to-day job to think differently and hopefully learn something they can apply in the future.

Lastly, we sponsor innovation challenges, where we take a business problem and give small, cross-functional teams a week or two to develop a solution. A recent challenge focused on using smartphones to enhance communication and mobility in a loud manufacturing environment. One team designed an app that provides a simple view of

machine performance for manufacturing supervisors, which allows them to be mobile within the factory. We also enabled unit leaders with earplugs to "hear" someone talking to them on the smartphone, using sensors that translate the words into vibrations that enter the ear canal. It's a great example of looking at a problem differently and leveraging consumer technology.

We like to say, "It's all about shooting bullets, not cannons," which means focusing on small, low-cost investments that can be completed quickly before tackling large initiatives. We start by

asking our business partners, "What is the problem you're trying to solve?" From that point, we look at different ways to solve the problem and present it back to them.

Overall, this holistic approach has been well received. As the company introduces new products and shifts into new markets, it's energizing to see how IS is supporting innovation across the company. We're nowhere close to being finished, but we're pleased with the response.



Dan Cornell is vice president and CIO at Altria.

VIEWPOINT

**Bill Fathers**

SENIOR VICE PRESIDENT AND
GENERAL MANAGER, HYBRID
CLOUD SERVICES BUSINESS
UNIT, VMWARE

**Stephen Braat**

SENIOR DIRECTOR AND
GENERAL MANAGER, CLOUD
AND MANAGED SOLUTIONS,
CDW

FOR MORE INFORMATION:
please visit vCloud.vmware.com
and www.cdw.com/vmwarevchs

Hybrid Cloud Raised by the Power of Two

Hybrid cloud involves multiple clouds—internal and external—connected in a way that allows for seamless management and data movement throughout. IDG Research maintains growth in hybrid cloud deployments will double in 2013, growing faster than any other cloud type.

Hybrid cloud is clearly the major cloud direction going forward. What is VMware bringing to the table in this regard?

BF: Scale is VMware's first advantage. We have over half a million clients worldwide that take advantage of our technology. These clients have been using our technology to build their own private clouds in over 70 countries for years. The second advantage we bring is our technology stack that is the underpinning for our vCloud Hybrid Service platform.

What is unique about VMware vCloud Hybrid Service offerings?

BF: These hybrid cloud services are entirely compatible with the technology we have used to build out our private clouds. As vCloud Hybrid Service was designed from the ground up for hybrid cloud, clients know their on-premise applications are going to work when moved into our public cloud. Most importantly, clients can build the next generation of applications in our public cloud and know that those can connect to their legacy applications. Clients can leverage all of the investments they have made and the knowledge they have gained in VMware's technology.

What is CDW offering to enhance the overall value of the vCloud solution?

SB: Our customers increasingly want to consume storage and compute beyond their on-premise infrastructure. Yet we do not merely want to offer storage or computing capacity; instead, we take a more holistic approach through a trusted partner like VMware. We provide the migration services required to enable that infrastructure, as well as the integration

services to run complementary technologies. CDW is a global leading provider of the vCloud Hybrid Service, not just for the technology but also for the value-added services that allow them to harness the full breadth of the solution.

Why do you believe the CDW team is well qualified to fill this role in working with VMware?

SB: CDW has sold and deployed VMware solutions to thousands of customers, giving us the basis to extend our capabilities into the hybrid cloud. We have a team of architects, engineers, and cloud specialists who are not only conversant on the virtualization technologies pioneered by VMware, but who are also fluent in the hybrid cloud solutions our customers are now seeking. That uniquely positions us to provide end-to-end deployment for our customers. As customers progressively look for hybrid cloud, they know their interactions with CDW and CDW's delivery of solutions are efficient, from pre-sales scoping and architecture all the way to the migration and integration of these services.

How will these offerings and services integrate with existing solutions that may be in place?

BF: One of the things our customers value is that these offerings are built for complete compatibility and integration with their existing solutions. The management and networking products our clients use on-premise can be used to manage workloads and application lifecycle, as well as migrate workloads on- and off-premise.

SB: Our market research indicates customers are purchasing cloud-based solutions and integrating many components. What makes VMware's vCloud Hybrid Service so attractive is it allows compatibility across the domains to migrate and run operating systems, applications, and even data through their solution, providing our customers unparalleled efficiency. ■

vmware®



My CIO: Just 20 Feet Away

Allstate CEO Tom Wilson says the CIO needs to be a source of innovation and energy **BY MARTHA HELLER**

You distinguish between a strategy that is supported by technology and a technology-driven strategy. What is Allstate's technology-driven strategy?

We divide our customers into four segments: those who choose local insurance assistance, handle insurance on their own, differentiate between brands and select on price.

What advice can you offer CIOs who are handling such high demand?

Suren Gupta, our EVP of technology and operations, sits 20 feet down the hall from me, and we interact continuously. He's on our strategy and reinvention committee, which approves strategy for all our businesses. I walk down the hall to get his thoughts—

late into the evening. Our research shows that the best source of energy is your own individual purpose. What drives you? Is it growing your business? Providing for your family? Making money? Helping those who are less fortunate?

Know your purpose so that if you're in a bad meeting, or you get that emotional punch in the face, you can say, "Why am I doing this?" and you will stay on course.

We have a program called Energy for Life, a workshop that helps you define your purpose and teaches you methods to achieve extraordinary results by focusing on your purpose. It teaches people how to use nutrition, exercise and emotional recovery techniques throughout the day. We've had over 7,000 employees go through the course in the last 18 months, and more are on the waiting list.



I walk down the hall to get his thoughts, because he's one of the architects of our business innovation.

Allstate is the only company to serve each segment, which requires different products and processes.

We've pioneered many of the analytic approaches to insurance operations that are now common in our industry. We've also created global standards for processes and technologies, which gives us efficiency and effectiveness in our global operations. One customer segment wants a mobile offering to chat on-demand with a local agent; another wants to see a picture on their phone of their car being fixed.

Our single global architecture and sophisticated data analytics capabilities allow us to provide each customer segment with a unique value proposition.

not just on technology matters but also on business matters—because he's one of the architects of our business innovation.

CIOs who aspire to Suren's level of impact need to learn about the business, own the transformation and teach the organization how technology can improve customer satisfaction.

In addition to all this, CIOs have to be a source of energy. People undergoing great change require a constant source of energy and motivation.

How is energy a part of your corporate culture?

We all need something to keep us going from early in the morning to

What is the payoff?

We need everyone's energy to compete. Everyone must know about the business and the technology, because it's from that nexus that we're going to see the innovations that differentiate us.

That's what we mean by technology-driven strategy: using our knowledge of technology and business to bring new options to the table. It is how IT takes a strategic role in the business.

Martha Heller is president of executive recruiting firm Heller Search Associates and author of *The CIO Paradox*. Follow her on Twitter: @marthaheller.

CIO CIO FORUM

on **LinkedIn**

Link to more than **53,000** members of the CIO community.

The CIO Forum is where members of the CIO community can connect and collaborate to move their business technology initiatives and careers forward. If you are a senior IT professional, we'd love to have you join—apply for membership today.

Visit www.cio.com/linkedin



Q: Want to reach 140,000 readers?

A: Place your ad here



The Marketplace section of

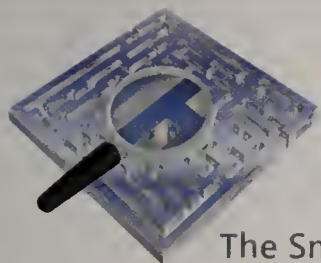


For more information contact:

Enku Gubaie

508.766.5487

egubaie@idgenterprise.com



dtSearch[®]

The Smart Choice for Text Retrieval[®] since 1991

Instantly Search Terabytes of Text

25+ fielded and full-text search types

dtSearch's **own document filters** support "Office," PDF, HTML, XML, ZIP, emails (with nested attachments), and many other file types

Supports databases as well as static and dynamic websites

Highlights hits in all of the above

APIs for .NET, Java, C++, SQL, etc.

64-bit and 32-bit; Win and Linux

Ask about fully-functional evaluations

www.dtSearch.com 1-800-IT-FINDS

"lightning fast"
Redmond Magazine

"covers all data sources"
eWeek

"results in less than a second"
InfoWorld

hundreds more reviews
and developer case studies
at www.dtsearch.com

dtSearch products:

Desktop with Spider

Network with Spider

Publish (portable media)

Web with Spider

Engine for Win & .NET

Engine for Linux

Document filters also available
for separate licensing

SALES AND SERVICES

EXECUTIVE COMMITTEE

President & CEO
Michael Friedenberg
508-935-4274

Executive Assistant to the President & CEO
Pamela Carlson • 508-935-4274

SVP of Human Resources
Patricia Chisholm
508-935-4734

SVP of Events
Ellen Daly • 508-935-4273

SVP & Chief Content Officer
John Gallant • 508-766-5426

SVP of Digital
Brian Glynn • 508-935-4586

SVP of Strategic Programs & Custom Solutions Group
Charles Lee • 508-935-4796

SVP, Group Publisher & CMO
Bob Melk • 415-975-2685

SVP & General Manager, Online Operations
Gregg Pinsky • 508-271-8013

SVP of DEMO
Neal Silverman • 508-766-5463

SVP & COO
Matthew Smith • 508-820-8102

SVP & General Manager, CIO Executive Council
Pam Stenson • 508-935-4089

SVP of Digital, & Publisher
Sean Weglage • 415-978-3314

SALES

Publisher Emeritus
Gary J. Beach • 508-935-4202

VP & Publisher
Adam Dennison • 508-935-4087

Senior Sales Operations Manager
Christine McKay
508-988-7836

Senior Sales Operations Coordinator
Bethany Whiffin
508-935-4092

Sales Operations Coordinator
Megan Roman • 508-820-8123

EAST COAST Account Director, Integrated
Ellie St. Louis • 201-634-2332

NEW ENGLAND/CENTRAL Account Director, Integrated
Brian Keenan • 847-508-8428

Account Coordinator
Stephanie Moran • 508-935-4154

WEST COAST Regional Sales Director, Integrated
Kevin Ebmeyer • 415-975-2684

Account Coordinator
Stephanie Moran • 508-935-4154

Account Director, Integrated
Ai Collins • 415-975-2686

Account Coordinator
Christine Hostetler
415-975-2683

ONLINE SALES

Account Director, Digital, East Coast
Richard Hartman
508-935-4487

Account Directors, Digital, West Coast
Carmen Facas • 415-975-2681

Account Coordinator
Lauren Eckenfelder
415-935-2687

Account Directors, Digital, West Coast
Erika Karr • 415-978-3329

Account Coordinator
Christine Hostetler
415-975-2683

VP of Business Development & Digital Media
Bill Rigby • 508-820-8111

VP of Digital Account Services
Danielle Thorne
508-988-7969

Online Account Services Team Lead
Beverly Lloyd • 508-988-6765

PRODUCTION

VP, Production Operations
Chris Cuoco • 508-988-7565

Production Manager
Lisa Stevenson Cobe
508-935-4591

LIST SERVICES

Contact Stephen Tozeski of IDG List Services at 508-766-5633 or stozeski@idglist.com.

CIO is published in the U.S. as well as in:

Argentina, CIO Cono Sur
<http://conosur.cio.com>

Australia, CIO Australia
www.cio.idg.com.au

Brazil, CIO
www.cio.com.br

Bulgaria, CIO Bulgaria
www.cio.bg

Canada, CIO Canada
cio.itworldcanada.com

China, CEOCIO China
www.ceocio.com.cn

Finland, CIO
www.cio.fi

France, CIO France
www.cio-online.com

Germany, CIO IT-Strategie für Manager
www.cio.de

India, CIO India
www.cio.in

Japan, CIO Magazine Japan
www.ciojp.com

New Zealand, CIO New Zealand
www.cio.co.nz

Norway, CIO Computerworld Forum
www.idg.no/cio

Pakistan, CIO Pakistan
www.ciopakistan.com

Poland, CIO
www.cio.cxo.pl

Portugal, CXO
www.cxo.com.pt/

Russia, Chief Information Officer Magazine
www.cio.ru

Singapore, CIO Asia
www.cio-asia.com

South Korea, CIO Korea
www.ciokorea.com

Sweden, CIO Sweden
www.cio.idg.se

Taiwan, CIO Taiwan
www.cio.com.tw

United Kingdom, CIO Magazine
www.cio.co.uk

CIO CONTACT INFORMATION

Editorial, Advertising and Business Offices: CXO Media Inc., 492 Old Connecticut Path, P.O. Box 9208, Framingham, MA 01701-9208, 508 872-0080.

CIO (ISSN 0894-9301) is published monthly with an additional issue in December. Periodicals postage paid at Framingham, MA, and at additional mailing offices. Canada Publications Mail Agreement Number PM40063731. CANADIAN POSTMASTER: Please return undeliverable copy to P.O. Box 1632, Windsor, ON N9A 7C9.

Reprints & Permissions:

For information about reprints and copyright permissions, please contact The YGS Group, 800-290-5460, ext. 100, cio@theygsgroup.com.

Photocopy Rights: Permission to photocopy for internal or personal use or the internal or personal use of specific clients is granted by CIO for users through the Copyright Clearance Center, provided that a fee of \$3.50 per copy of the article is paid directly to Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01970. www.copyright.com. Please specify: ISSN 0894-9301. Permission to photocopy does not extend to contributed articles followed by this symbol: ‡.

Subscriptions: CIO is free to qualified information executives. To apply, use our online subscription format <http://www.cio.com/subscription-services>. Subscriptions are also available on a paid basis at a rate of \$129 for the United States and Canada, \$195 International (payable in U.S. funds only) and may be ordered online at <http://www.cio.com/subscription-services>. Or address inquiries to CIO, P.O. Box 489, Northbrook, IL 60065-0489; 866 354-1125. Please allow four to six weeks for a new subscription to begin. The single copy price is \$9 for the United States and Canada, and \$15 International. Digital annual subscription \$29. Prepayment is required, payable in U.S. funds.

Change of Address: Please go to <http://www.cio.com/subscription-services> and follow the online instructions.

Postmaster: Send change of address to CIO, P.O. Box 489, Northbrook, IL 60065-9816. Printed in the U.S.A.

INDEX OF COMPANIES AND ADVERTISERS

Page numbers refer to the first page of the article(s) in which the company has a substantial mention. This index is provided as a service to readers. The publisher does not assume any liability for errors or omissions.

COMPANY INDEX

Allstate 36
Bitcoin Foundation 18
Boston Scientific 24
Breathometer 40
Capital One 11
Constellation Research 20
CUNA Mutual Group 26
DirecTV 30
Ericsson 19
Event Connections 14
GAF 26
Gartner 18
Gatwick Airport 20
Hallmark 16
The Hershey Co. 11

Jacobs Engineering Group 25
Kroger 25
Maple Leaf Foods 30, 32
PricewaterhouseCoopers 11
ProSight Specialty Insurance Group 32
Redfin 20
Spanning 20
A.T. Kearney 26
Whirlpool 28

ADVERTISER INDEX

American Public University 19
CA 21
CIO 100 Call for Entries 39
CIO Forum on LinkedIn 37

CIO Marketplace 37
Cisco Systems, Inc. 2
Dell Software Group 27
Dell SonicWALL C3
dtSearch 37
F5 Networks, Inc. 17
InterSystems Corp. 9
Microsoft 13
NetApp, Inc. C4
NTT DATA Corp. 33
Plex Systems, Inc. 10
Super Micro Computer, Inc. 31
Verizon C2-P1
VMware, Inc. 5, 35
Worksoft 6-7

CALL FOR ENTRIES

CIO 100

27TH ANNUAL AWARDS COMPETITION

IT Means Business.

Your company counts on you and your IT organization to help maintain its competitive edge with innovative, high-impact technologies that run and grow the business.

We want to know how IT makes your company thrive.

Our CIO 100 awards celebrate the many ways that IT increases business value and delivers strategic advantage to the enterprise. Perhaps you took a risk on an emerging technology or deployed the tried-and-true in a fresh new way. Maybe you've revamped a critical business process, improved collaboration, pursued new markets or gotten closer to customers through IT.

Whether technology is improving your organization's bottom line or boosting its top line, if you can show measurable results from successful IT innovations, your colleagues and our readers want to know about it.

Become one of the CIO 100.

Presented by



**Submit your application
by February 1, 2014**

CIO 100 honorees will be recognized at the annual CIO 100 Symposium & Awards Ceremony, August 17-19, 2014, at The Terranea Resort in Colorado Springs, Colo. Honorees—and their winning ideas—will be featured online as well as in the August 2014 issue of *CIO* magazine.

**APPLY
NOW!**

Go to [www.cio.com/
cio-awards/cio100/
application](http://www.cio.com/cio-awards/cio100/application)



In Good Spirits

Festive drinks may be part of the holiday season, but this year technology can help people make smarter decisions when alcohol is involved. The Breathometer is a \$49 device about the size of a box of Tic Tacs that plugs into a smartphone's audio jack. With the Breathometer app on, the user blows into the breathalyzer for a few seconds. If his blood alcohol content is higher than the national legal limit of .08 percent, the app uses Yelp to suggest nearby cab companies. The app can also calculate how long it will take to sober up. "We wanted to make the experience super simple," says Charles Yim, founder and CEO of Breathometer. After all, he says, "when people are using it, they are already inebriated." Yim pitched the device on ABC's *Shark Tank* and received \$1 million in investments. Breathometer was released in October and so far has tallied tens of thousands of orders.

—Lauren Brousell

For deeper network security

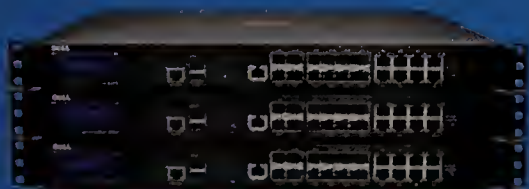
look beyond the obvious.



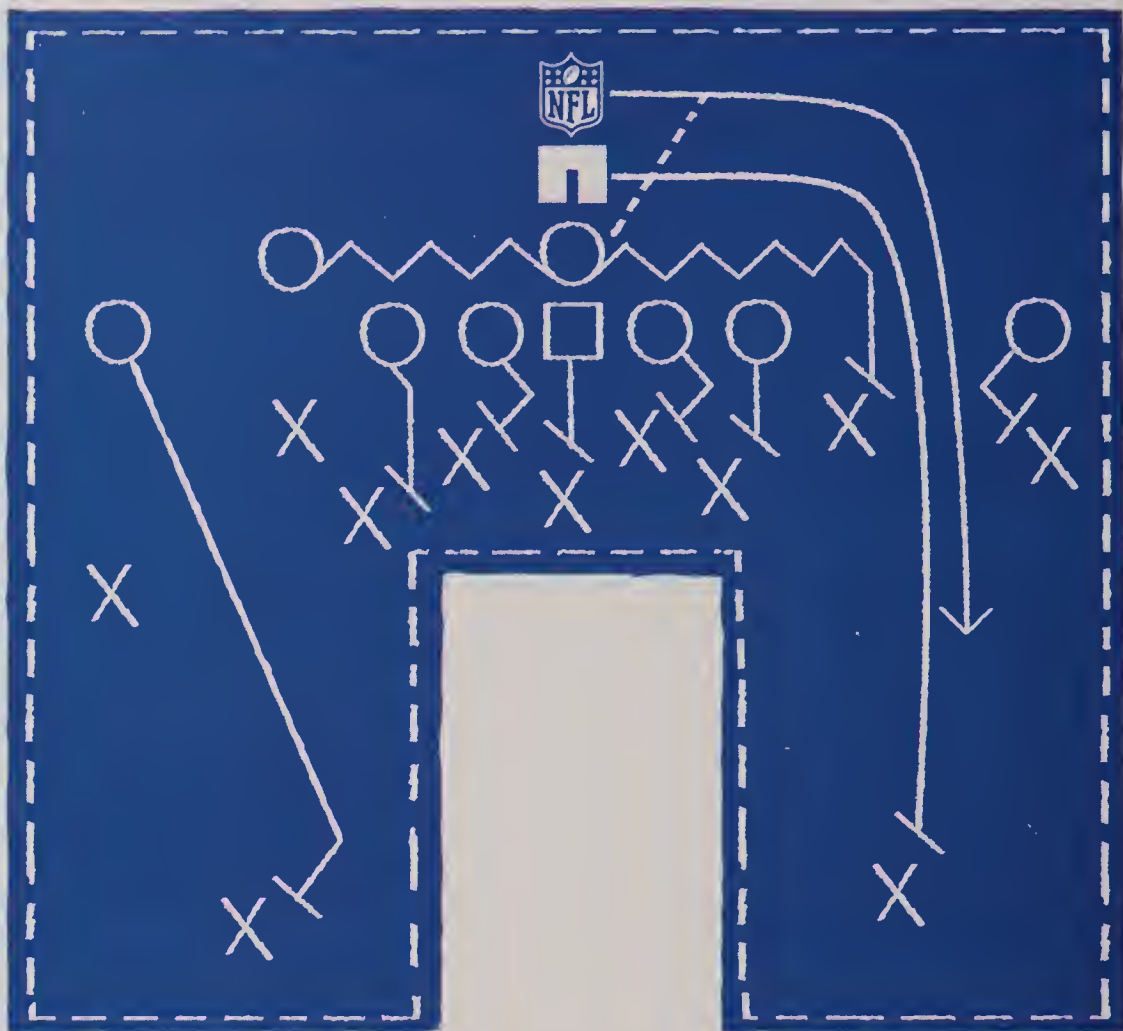
Dell™ SonicWALL™ next-gen firewalls provide a deeper level of network security without slowing down performance.

Not all next-generation firewalls are the same. To start, Dell SonicWALL next-generation firewalls scan every byte of every packet while maintaining the high performance and low latency that busy networks require. Additionally, Dell SonicWALL network security goes deeper than other firewalls by providing high-performance SSL decryption and inspection, an intrusion prevention system that features sophisticated anti-evasion technology, and network-based malware protection that leverages the power of the cloud. Now your organization can block sophisticated new threats that emerge on a daily basis.

Go deeper at: sonicwall.com/deep



The power to do more



The NFL runs on NetApp,
the world's #1 storage OS?

Yep, NetApp.

netapp.com/nfl
#NetAppNFL

The Official Data Storage Provider of the NFL

